AMERICAN MILK REVIEW

VOL. 6 No. 8 AUGUST, 1944

PLANNING FOR A *New Separator* NEXT YEAR?

PERHAPS yours is one of hundreds of dairy products plants in which an old separator is wasting product, aggravating the labor problem by its too small capacity, or is worn beyond satisfactory repair. Possibly you are planning to install a new "Air-Tight" Separator "next year." If so, you should remember that it is no longer possible to secure equipment on pre-war delivery schedules. Order well in advance; preferably at once!

The De Laval "Air-Tight" Separator meets the wartime need for economy and dependability. It saves the product — both butterfat and skim-milk; improves plant operating efficiency; uses little power and oil; requires few parts for repair or maintenance; works long hours with minimum attention.

At the same time the "Air-Tight," operating in a completely enclosed system, gives you other advantages which you will consider almost equally important when peace comes. It produces better cream for fluid use or buttermaking; is more sanitary; is more convenient to operate of itself and enables the entire separating operation to be more conveniently arranged.

Again: Better consult De Laval at once regarding replacement if you are in doubt about getting through next year with your present separating equipment.

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"AIR-TIGHT" and "WORLD'S STANDARD" TYPES

AMERICAN MILK REVIEW

Volume 6 NEW YORK, AUGUST, 1944 No. 8

Adopt New Publicity Drive

American Dairy Association To Launch Widespread Public Education Campaign In September—Vital Economic and Nutritional Values to be Highlighted

CHICAGO, ILL.—America's dairy farmers now are out to show what the dairy cow means to the nation. In a new coast-to-coast campaign, the American Dairy Association has undertaken to present to the people, in the most dramatic and effective possible way, the fundamental theme that dairying is the backbone of agriculture, and that agriculture is the foundation of the nation's economic life.

The program, drafted by ADA's post-war planning committee headed by President Dan T. Carlson of Willmar was approved unanimously by the ADA executive committee at its meeting in Chicago, July 26. The declaration by the dairy leaders emphasized necessity of high national income after the war, and then called for:

"Unfolding before the public the basic economic importance of insuring a sound, productive and progressive post-war agriculture as the basis for maintaining the national income at a high level and providing full employment."

Such an informational campaign is essential, Mr. Carlson said, to bridge a wide gap in the public understanding of farm problems. Owen M. Richards, ADA manager, explained that "while the basic importance of dairying and agriculture is obvious to dairymen and their industry, it is equally obvious that the public at large hasn't any adequate conception of that importance.

Public Understanding Essential

"Evidence of this," Richards said, "is found in widespread attacks on key dairy products which jeopardize the industry as a whole, and lack of understanding as to what the dairy farmers and their industry need in manpower, equipment and a fair return. Likewise in irrational suggestions that America should permit shrinkage in her livestock type of farming that has provided the bread, butter and meat standard of living—the American standard of living—and turn in the direction of the starvation field crop diet of the peoples of China and India."

Richards said the story of dairying's vital economic role is a "brand new story to millions of Americans," which can be told "positively, constructively for the good of agriculture and the nation."

The campaign will utilize all available channels of information, including advertising in newspapers and magazines; special material on the ADA's network program, The Voice of the Dairy Farmer, featuring Everett Mitchell and Clifton Utley; and publicity. Like other phases of the program, it will be kept flexible to permit swift changes of emphasis in keeping with developments in the news.

Richards said that it was peculiarly appropriate for this program to be carried on by the ADA(as a producer-supported and controlled movement for protection and progress of the industry and all its products.

Richards Sounds Keynotes

Noting suggestions of "false prophets" that America should reduce livestock herds and turn more to field crops for what the theorists contend is "efficiency," Richards stated:

"America is eager to build efficient use of the soil. Therefore we must build public understanding of the fact that dairying and livestock production do make for that efficiency—that cows turn roughage, inedible for humans, into the most nearly perfect food—that they are among the major factors that have made America great.

"America is just awakening to the need for soil conservation. We can explain how dairying conserves the soil because dairy cows graze on soil-retaining grasslands and return fertility to the earth. We can point to estimates that two per cent of our food-producing topsoil is washed down the Mississippi-Missouri rivers every year. We can note that the South is turning more and more toward dairying as a savior from single-crop ruin.

"America wants a busy industry," he continued. "We can show how dairying produces the greatest cash crop, link-ink dairying intimately with the fortunes of the urban dweller. Unless dairying prospers, agriculture is sick and the city industrial worker feels the effects through dwindling paychecks and layoffs. Dairying produces more farm revenue than the next two crops combined. We can emphasize that it matters a lot to everyone, therefore, whether dairying is sick or sound.

"America understands regular paychecks. We can emphasize that dairying provides the farmer with the equivalent of the industrial worker's wage—a year-round cash income without which he couldn't carry his own load from harvest to harvest.

"America is eager to make jobs for returning servicemen and workers released from war factories. We can point out that dairying provides jobs for farm help all year and enables the farmer to use his managerial ability to best advantage.

Country Nutrition-Conscious

"America has never been more nutrition-conscious than today," Richards emphasized. "We can stress that America has never had enough dairy foods, that the basic trouble with dairying has never been over-production, but under-consumption; and that conditions and poli-

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cies should permit dairying to expand rather than force it to reduce the record herds it has built during war-time."

At the same tim the new informational drive is conducted, the ADA will continue work on its aggressive, nation-wide advertising and research program designed to encourage post-war consumption of dairy foods at least enough to meet the record war-time production, the executive committee decided.

The post-war planning committee members, whose program was adopted by the executive committee, included, in addition to Mr. Carlson: Bryce S. Landt, Wisconsin Dels, Wis., ADA treasurer and chairman of its advertising committee; A. H. Lauterbach, Chicago, Pure Milk Association manager and ADA membership relations chairman; Dr. Robert Prior, Seattle, ADA vice president and research chairman; and C. R. Schoby, Bode, Iowa.

Landt and Richards estimated the ADA's 1944-45 income at approximately $500,00, a gain of about 25 per cent over the previous year. A tentative allocation of $46,000 was made for research. The research committee headed by Dr. Prior was authorized to work with the ADA advisory committee in outlining specific projects to get under way immediately. This new research allocation, added to a research carryover from last year, provides approximately $55,000 for scientific work.

THATCHER EARNINGS UP

President Frank B. Pollock Reports On First Six Months' Operations

Frank B. Pollock, president of the Thatcher Manufacturing Company, manufacturers of milk bottles since 1884, in his report on the company's operations for the 6 months ended June 30, states that net sales, gross operating profit, net profit before federal taxes, provision for federal taxes and net profit after taxes had all increased as compared with the same period last year in the following percentages respectively: 19.2, 65.8, 146.6, 107.5, 182.0.

It was stated also in the report that on June 15 a dividend in the amount of $.50 per share on the common stock was paid to all common stockholders of record May 31. Directors also declared a 113th consecutive dividend of $.90 per share on the convertible preference stock payable August 15 to preference stockholders of record July 31.

As a part of Thatcher's program of diversification, the company will soon start manufacturing amber glass containers. President Pollock concluded with the statement that the company's properties are being modernized just as rapidly as new equipment can be obtained and the manpower situation permits.

Set August Quotas

WFA Holds Fluid Milk Limits for Month at 100% of Base—Cream Drops Back to 75%

Washington, D. C.—Quotas limiting sales of fluid milk, cream and milk by-products have been set by the War Food Administration the same in August as in July, except for a reduction in the cream limit. August quotas, contained in War Food Order 79, permit dealers to sell 100 per cent as much fluid milk as they sold in June, 1943, the base period, 90 per cent as much milk by-products (chocolate milk, buttermilk, cottage cheese), and 75 per cent as much cream. This quota was 90 per cent for July. The 75 per cent cream limit represents a return to the limitation which prevailed from the time the milk conservation program was initiated in October, 1943, until the spring flush in milk production this year.

The only exceptions will be in the southern states where the cream and by-products have been averaged into one quota permitting dealers to sell 85 per cent as much milk in cream and by-products as a group, as they did in June, 1943.

Since April 1, the 35 market agents administering the conservation program locally for the WFA have had authority to increase the national quotas wherever seasonally increased milk production and limited manufacturing facilities warranted such increases. In the New York area this provision has been utilized this spring and early summer to boost quota limits materially. Such authority expired at the end of July, and will not be renewed.

MILK TRUCKERS "SICK"

Distributors Experience Inconvenience in Obtaining Needed Supply

Alleging sickness about eighty-five milk truck drivers employed by the McBride Trucking Co. in Goshen, N. Y., delayed truck deliveries of milk to New York City during the first week in August.

Frank McBride, a partner in the trucking firm, reported that when the drivers were summoned by callboys they reported sick, "practically without exception".

Prior to the expiration date, August 1, of a contract between the company and the truckmen's union, Local 445 of the Teamsters Union, A. F. of L., union representatives had sought extension of the contract with wage increases amounting to 15 cents an hour. The company countered with a proposal of a 5-cent rise, and negotiations ended.

Large milk distributors in the city managed to obtain supplies with some delays. A representative of Sheffield Farms stated that other transport for milk which usually is handled for them by McBride was obtained. Other trucking concerns put spare equipment into service, it was said.

CONSERVATION OF TRANSPORT

ODT Reports Huge Savings in Gasoline, Tires, Mileage and Labor

Virtually all milk produced on the nation's farms during the 1944 spring flush was transported to market, manufacturers or shipping centers despite the fact that there were fewer motor trucks available for the movement this year than before the war, the Office of Defense Transportation has reported.

Dairy farmers, haulers, dealers and processors were commended by the ODT for their participation in transportation conservation programs, with the spring flush behind and the farmers well on the way to produce the 121,237,000,000 pounds established as their 1944 goal.

Colonel J. Monroe Johnsorr, ODT Director, pointed out that as of June 16, the ODT had approved 616 Dairy Industry Advisory Committees elected by producers, haulers, dealers and processors of milk and milk products.

"ODT has put into effect," he said, "transportation plans developed by these committees which result in annual savings of over 55,552,000 truck miles, more than 305,540,000 tire miles, about 5,555,000 galons of gasoline, and well over 3,703,000 man hours."

DRY MILK SET-ASIDE

Washington, D. C.—Reductions by the War Food Administration in set-aside quotas of non-fat dry milk solids for war uses became effective August 1. Sixty per cent of production of spray process dry skimmilk and 35 per cent of production of roller process are to be set aside by manufacturers during August and September.

During July set-aside percentages were raised to 75 on spray and 50 on roller. The reductions n quotas, WFA officials explain, were in accordance with the program to operate the set-aside quotas on a seasonal basis, designed to make available relatively even supplies throughout the year for civilian uses.

Indications are that the set-aside quotas may be further reduced during October and later months. However, definite assurance of such further reductions cannot yet be made in view of the uncertainty of many war requirements, particularly those for feeding people in liberated areas.

Editorially Speaking....

An Interesting Survey

A RECENT report issued by the U. S. Department of Agriculture on the results of a survey made by that agency among 450 Chicago housewives and their families as to their acceptance of dehydrated foods indicates a rather low preference rating for dried milk as compared with other dried foods considered in the study.

Listed in their order of preferment, the report states that dehydrated milk was quite well down the list, cranberries, eggs, sweet potatoes and beets being given more favorable consideration by this small segment of ultimate consumers. Less liked than milk were carrots, diced and riced potatoes. According to the report, housewives expressed willingness to buy such dehydrated foods chiefly because they liked the taste or found them easy to prepare, although other advantages such as space saving also were mentioned.

Considering the standing of dried milk in the list of foods mentioned in this relatively minor survey, it may be concluded that there is still much to be desired in the product from the standpoint of taste and ease in preparation. Results of recent research indicate that new equipment and improved processing methods are already making possible a dried milk that is much more acceptable to the consumer from these two vitally important angles.

At the present time, with a continuation of a relatively very high rate of total employment and correspondingly high purchasing power, the fluid milk industry has little to fear from domestic use encroachment of milk in the dried form. On the other hand, preparation against adverse eventualities by continuing intelligent public relations and general good will programs is but the exercise of good business judgment.

Even by overcoming its less desirable or objectionable features there is by no means any real assurance that dried milk will supplant to an appreciable degree milk now being sold in fluid form for consumption as such, but post-war economic conditions *will* play an important part in determining consumer acceptance of dehydrated milk. Some of the present unknown factors which may influence total demand in this direction are: Consumer purchasing power, national employment, and costs of distribution and production of fluid milk. And, of course, the extent of consumer educational programs will be another important determining factor.

Opportunities Ahead

FOR THE benefit of young men in the armed services who have had some training in dairy science, the officers of the American Dairy Science Association have painstakingly prepared a four-page pamphlet entitled, "Opportunities in the Dairy Industry in the Post-War Period." The purpose of this endeavor is to encourage boys in the service to continue their college education in subjects bearing on the field at the earliest possible opportunity.

In a highly optimistic and at the same time realistic vein the association's officials point out that the milk and milk products industry, still in its infancy, will need more trained men than ever before. Included among the more important points enumerated in the pamphlet which might induce youg men to follow a career in the dairy businesses are the following: Greater general recognition of the necessity of dairy products in the diet, and greater demand for them; Inevitable expansion of the industry due to a greater appreciation of the nutritional value of milk and its products; New processes being developed; Increased emphasis upon efficiency in both production and manufacturing; Expansion in research; Technical applications in production; Replacement for vacancies; Post-war readjustment potential of the dairy industry; Advancement in methods of production, processing and preservation, as well as new dairy products.

Just the reverse of much of the vague idealism and unsupported theory being propounded for the post-war period by some visionaries, the opportunities in the dairy field during the peace ahead, as brought forward by the officers of the American Dairy Science Association, appear extremely sound and practical as well. This is typical of the thoroughgoing methods employed by members of that organization in all of their endeavors.

These well-presented reasons should induce many ambitious young men in and out of the armed forces to pursue further studies at the earliest possible moment in order to qualify themselves for professions and positions of responsibility in the dairy industry for which the future holds so much in store.

Dean Woodward Views Future

DEAN E. G. WOODWARD, director of the Connecticut College of Agriculture, in a recent radio broadcast on the General Electric Farm Forum, declared that several discoveries in farm science are so new they have not yet been put into general farm practice. Among the developments for future farm use, Dean Woodward mentioned specifically the better control of widespread mastitis among dairy herds; the control of Bang's disease; the new system of fast milking; the most profitable dry period for dairy cows; grass silage; artificial insemination; quick freezing and dehydration of farm products.

What the future holds in store for the dairy industry along the lines indicated by Dean Woodward is in directions that seem indeed sound and practical. Research and experimental work have already demonstrated the highly successful achievements gained by these discoveries; and, too, in some sections of the country, certain of these practices are now being followed to a greater or less degree.

Even though marked progress along these lines may be temporarily suspended or held in abeyance, due to conditions brought on by the war,—shortage of scientifically trained personnel, insufficient farm labor, lack of materials, supplies

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and equipment,—we should not be discouraged. Each day, bringing closer a cessation of hostilities and a return to peaceful pursuits, should cause us to look forward confidently to the time when the dairy industry may enjoy the fruits of the accelerated developments mentioned by Dean Woodward.

Aid to Cattle Testing

ACCORDING to Farm Science Notes for June 30, issued by the Department of Agriculture, a new portable stanchion developed by Dr. Ralph W. Boone of the BAI, strong enough to hold mature cattle securely yet small enough to be carried in the trunk compartment of an automobile, is proving to be valuable in the Federal-State campaigns against bovine brucellosis and tuberculosis. The device looks much like a gate about 2 feet 8 inches wide and of the same height, strongly built of 2x4 and 2x8 pieces securely bolted together. A longer 2x4 upright is pivoted only at the bottom, thus providing the movable side of the stanchion.

The stanchion-gate is installed so that the lower part is about 16 inches from the ground or floor. It can be easily attached to a door frame or the end of a chute. Or it can be used alongside a barn in combination with panels, which are commonly available on most farms, to provide a satisfactory pen with the stanchion at one end.

Acknowledging the definite benefits to be derived by testing dairy cattle for Bang's disease and tuberculosis, a new facilitating development such as this portable stanchion must be considered a direct contribution to the field of dairy production, and to Dr. Boone goes the well-merited credit for his practical ingenuity.

Beauty and Milk

PICTURED on the front cover of this issue of the "Review" is a delightful summer scene indeed—the cooling waters of a swimming pool, and a striking young lady relaxing after a game of badminton with a glass of cold refreshing milk, served in a manner befitting a queen.

And who may the pretty girl be? Why none other than that charming Hollywood actress, Simone Simon, who is starring in RKO Radio's forthcoming "Mademoiselle Fifi". And it is to RKO Radio Pictures that we are indebted for this photograph, which tells in more than a thousand words the highly important part that milk plays in supplying refreshment, health, beauty and vigor for adults as well as children.

We thank you, Simone, for being such an outstanding exponent of the nutritional virtues of milk.

Calls Milk Hearing

Several Changes in New York Area WFA Control Set-up to be Considered at Public Session

Washington, D. C.—The War Food Administration has scheduled a public hearing in New York City on August 15 to discuss a series of proposed amendments to the federal order regulating the handling of milk in the New York metropolitan marketing area. The hearing will be held at the Commodore Hotel, beginning at 10:00 a.m. (EWT).

Suggested changes submitted by handlers and farmer organizations in the milkshed, together with amendments proposed by the Office of Distribution's Dairy and Poultry Branch, involve several provisions of the order. More specifically the proposed amendments would:

1. Provide for administrative determination of the milk which is to be subject to the regulation, rather than exclusively on the basis of actions by various public health authorities.

2. Provide for classifying the butterfat and skim milk as separate components of milk and for the separate pricing of both butterfat and skim milk in arriving at a uniform or market pool price to be paid producers.

Manufacturing Cream Prices

3. Provide for reexamination of the prices for manufacturing cream, particularly frozen cream, New York City ice cream, and for cream sold in the special cream area.

4. Provide for the payment of butterfat differentials to producers on a basis of the weighted value of all butterfat in all classes.

5. Provide for the issuance of rules and regulations governing technical aspects of accounting for and classifying milk and provide for subsequent amendment of such rules and regulations by the market administrator.

6. Authorize the market administrator to handle subsidy monies and develop and operate emergency programs associated with shortages or excesses in the market supply of milk.

7. Provide a time limit for auditing or reauditing handlers' accounts and for the application of handlers seeking formal administrative review of actions taken by the market administrator.

Proposed amendments which would change the basic level of prices for fluid milk and fluid cream to be sold in the marketing area will not be considered at the hearing, WFA said.

REDUCE ICE CREAM QUOTAS

Washington, D. C.—WFA announced, effective August 1, a return to a 65 per cent limit over the base period on milk solids going into ice cream and frozen dairy foods. Likewise maximum milk solids was cut back to 22 per cent.

During the flush season makers had been permitted to use 75 per cent of the milk solids used in the corresponding months of the base period—December, 1941 to November, 1942—and milk solids per quart content limit had been raised to 24 per cent.

SQUARE BOTTLE PROMOTION

Prominent Glass Container Firms Introduce Novel Design

Early in July, the Owens-Illinois Glass Company and the Thatcher Manufacturing Company launched intensive advertising campaigns to promote the sale of newly developed square glass milk bottles.

Advantages pointed out for the new containers are: less weight than round bottles; occupy less space on trucks, in coolers and in home refrigerators; cases may be stacked interchangeably; time and labor savings in plants and on trucks. Thatcher is running a suggestion contest for a name for their new square bottle. "Tray-Pak" is the name selected for Thatcher's new bottle carton designed to save paper, reduce breakage and facilitate inspection of package contents.

N. J. PUBLIC MILK HEARING

Arthur F. Foran, Director of Milk Control of the State of New Jersey, has issued a notice that a public hearing will be held in the War Memorial Building, in the City of Trenton, on Monday, August 7th, at 10:00 A. M., for the purpose of: Considering the prices to be paid to producers for Class I and Class II milk and the prices for sales of milk and cream by and between all persons in respect to whom by law the price may be regulated.

Testimony is particularly invited as to the costs of production, processing and distribution.

All interested parties and particularly producers, consumers, dealers, subdealers, storekeepers, and public health officials in this State are invited to attend and submit such proofs pertaining thereto as may be relevant.

ROY BABCOCK DEAD

Early in July Roy Babcock, president of the Babcock Dairy Company in Toledo, Ohio, died following a recurring heart attack from which he had suffered for several years.

Mr. Babcock founded his business in 1908 on a farm on the outskirts of Toledo. He was prominently identified with the Toledo Milk Distributors Association and the Ohio Dairy Products Association.

Butter Market Firmer

Civilian Supply of Fresh Tightening Under Shrinking Production — 16 Points Dampening Demand

Increased firmness is developing in the New York City butter market under the prospective trend toward increasing deficiency in civilian supplies. Production is falling faster and running somewhat further behind same time last year. The latter tendency seems unlikely to alter. Late advices are that governmental agency stockpiling has run behind schedules, and probabilities are that the set-aside order will have to be continued at some percentage level through September or October.

For the present major users here still are able to secure about enough butter for sharply cut needs. Some small outlets likewise have not taken all the butter they could secure. Nevertheless, large users are buying more freely, and the non-receiving jobbing trade as a whole still is definitely pinched,—apparently to an increasing degree,—and small independent stores are not getting all the butter they could dispose of.

Consumer inquiry at the 16 point level —with points having to last twice as long as last year—is, of course, definitely dampened. How all the varying influences will bear on future civilian supplies cannot yet be properly gauged. It seems most improbable, however, that under existing conditions the rise to 16 points will ration civilian butter supplies into a surplus.

Private Reserves Above 1943

Deficiencies in fresh can be in part offset by private storage reserves, which this year stand considerably above the limited quantity so held a year ago. To what degree this will be a factor is not clear.

Pricewise, the market holds decidedly firm with sales pressing ceilings on all wholesale and jobbing transactions. Most butter still is being traded in commercially as 92 to 93 score, with a lighter quantity now tendering here as 89 to 90 score. The OPA enforcement agency check-scoring drive is continuing. Only a relatively small quantity of open market receipts is being moved other than at maximum jobbers' margins.

WFA reports commitments to DPMA May 1st to July 27th of 18,690,266 lbs. of butter under the set-aside program, for which its 1944 goal is 30,000,000 lbs. Armed force reserve accumulation, as to which no definite figures are released, is understood to be lagging short of needs.

DPMA has lately called for bids on 3,000,000 lbs. of set-aside butter parchment wrapped in 1-lb. prints, packed in specified export type wood, fibre or corrugated paper packages, preferably 60 lbs. and preferably 92-93 score, for immediate and future delivery to West Coast points for shipment to territorial possessions, etc.

RESTAURANT MILK CEILINGS

Washington, D. C.—Ceiling prices for milk sold by establishments subject to the new restaurant regulation are frozen at the lawful ceiling prices in effect during the week of June 18 to 24, 1944, the Office of Price Administration announced August 1.

Effective July 31, this action was taken, OPA explained, to provide a uniform method of price control for milk sold by restaurants for immediate consumption. Until now methods have varied among the regions. In some places ceilings were established by regional milk orders and in others by regional or district restaurant "freeze" regulations.

The new restaurant regulation makes no change in retail prices for milk, OPA emphasized. It merely continues the ceiling prices established by earlier regulations. For instance, in those areas where the ceiling prices were established by regional or district restaurant "freeze" regulations the ceiling prices for milk continue to be the highest price charged during the week of April 4 to 10, 1943.

At the same time, OPA announced that "seasonal operators" whose 1943 season prices were "frozen" under district or regional restaurant regulations at April 4 to 10, 1943 "highs" may take as their ceiling prices the highest prices they charged for meals, food items and beverages of the same class during the same seasonal period of 1942.

LIBERTY GLASS USES RADIO

In a three-point objective, Liberty Glass Company, Sapulpa, Oklahoma, is conducting an educational job on a selected list of radio stations during the summer and fall months. In a letter to the milk distributing trade, Liberty announces the following objectives for the campaign:

1. To create a greater appreciation of the importance and value of service which the milk dealers are rendering the American public.
2. To emphasize the value of milk as one of the Nation's most important foods.
3. To educate the public on the safety, convenience and sanitation of the Liberty Returnable Glass Container as the ideal container for the distribution of fresh milk and other dairy products.

Buy U. S. War Bonds

Advance Milk Prices

OPA Ruling Permits Local Up-State Dealers to Raise Class 1 Payments Up to 5c Per 100 Lbs.

Albany, N. Y.—An Office of Price Administration order permitting local milk distributors in up-State New York to pay up to 5c per hundredweight additional for Class 1 milk became effective August 1.

The order, signed by OPA Regional Administrator Daniel P. Woolley, allows the local distributors to pay that much more than the pool or blend prices for the metropolitan market to "effect an equalization of prices". It will not change the present OPA maximum price ceiling for fluid milk sold wholesale or retail.

Kenneth R. Wood, OPA milk price specialist, explained that as production declined from the June peak and a higher percentage was used in the higher priced Class I fluid milk category, the blend, pool or uniform prices to farmers increased rapidly, "placing local buyer distributors, who were frozen at January, 1943, levels, at a disadvantage in buying from farmers".

"This led some farmers," said Wood, "to change delivery points and created an abnormal diversion of supplies away from local markets to the more attractive and in some cases more convenient New York City or Boston shipping plants."

BUHL NAME CHANGE

More Aptly Describes Company's Diversified Activities

Effective August 1, the name of "Buhl Stamping Company" has been changed to the "Buhl Manufacturing Company". An announcement states that this change is being made to better describe the activities of the company as it has been found that over a period of ten years, the stamping production aggregated less than 5 per cent of the total volume.

The Buhl Stamping Company was founded June 30, 1888 by Christian Henry Buhl, and since that time it has been headed by its founder, later by Theodore D. Buhl, and at the present, by the Board Chairman, Lawrence D. Buhl.

The company, when founded in 1888, was the outgrowth of the Detroit Locomotive Works (1850-1888). From 1888 on, it has consistently manufactured high quality containers and accessories for the dairy industry. At different intervals, other lines have been added and discontinued, but throughout the years the company has always been a leader in manufacturing milk cans, ice cream cans, strainers, pails, etc.

N. Y. June Milk $3.12

Month's Net Return Tops 24-Year Record — Feed Payments Boost the Total to $3.57

A twenty-four year record was toppled when the mid-July computation of the New York Metropolitan area milk pool for June showed a uniform net return to dairy farmers in the six-state shed of $3.12 per 100 pounds. The June figure, announced by Administrator Dr. C. J. Blanford, exceeded the previous June high of $3.10 recorded in 1919.

War Food Administration dairy feed payments of 45c per 100 pounds will bring the total pool figure to a minimum of $3.57. The $3.12 basic rate shows a 9c gain over the same month a year ago.

Farm income from pool, including butterfat and location payments worth nearly $470,000, will amount to $20,849,126.64, but the WFA payments, figured at the lower rate, will boost the total returns to the record amount of $23,788,472.52. The record yield was established this May when the pool return, combined with federal payments, amounted to $23,667,061.95.

Dr. Blanford announced that the pool was formed by delivery of 653,187,974 pounds of milk from 51,486 farms. He pointed out that, while the volume is less than a year ago, it was accumulated at the highest production rate on record. Dairy farmers delivered at the average rate of 423 pounds of milk a day. In June 1943, when the pool volume exceeded 670,000,000 pounds, it was delivered at the rate of 414 pounds a day. The larger volume was the production of 54,095 dairy farms, and it was received at 460 plants,—10 more than are now participating in the pool.

Fluid Consumption Heavy

Consumption of fluid milk, yielding dairy farmers the highest value, set a new record for the New York market with 8,132,402 pounds a day in June. (A milk-quart equals 2.15 pounds.) The administrator pointed out that the June rate topped by a small margin the record of 8,065,889 pounds a day in June 1943. The record consumption for any month, however, is still credited to the 31 days of May 1944 when the market used 248,237,663 pounds. June's total came to 243,972,087 pounds.

Sales of fluid milk, despite the record that was established in June, apparently fell short of the quantity allowed by the quotas of the milk conservation program. The June quotas were 108 per cent of the sales in June 1943, but the pool reports indicate at this time that fluid sales were scarcely 1 per cent higher than last year.

Pointing out that the actual price is 2 cents less than the estimated rate of $3.14, Dr. Blanford explained that the lesser figure was the result of three distinct factors. Production, rising to the peak of 423 pounds per day per farm, exceeded expectations, while fluid consumption failed to measure up to the quotas which were the basis of the projected use.

Payment of storage cream rebates amounting in all to $54,170.48 was the third reason the price fell below the estimate. The rebates, equivalent to nearly 1 cent a hundredweight on all the milk delivered in June, were claimed earlier in the year for making butter from stored cream. Additional rebates, according to the administrator, are awaiting audit and payment. The substantial sums going out in rebates are the result at least in part of the competition of cream from unapproved sources in the New York market. Handlers with storage cream, in consequence, were unable to command preferred use in higher-valued products.

Look For $3.68 Total in July

With production at the highest July rate on record, dairy farmers can expect a return of at least $20,850,000 from July deliveries according to a later estimate from Dr. Blanford. He looks for a total value of July milk of $3.68 a hundredweight, to top the 1919 record of $3.22. The forecast was figured from the administrator's estimates that the New York milk pool would pay $3.23 a hundredweight and that the pool's 450 plants would account for an intake of 556,000,000 pounds of milk.

In addition to the pool's uniform price, now foreseen at $3.23, dairy farmers will collect feed payments from the WFA at a minimum rate of 45 cents a hundredweight. A total return at the record July rate of $3.68 is thus indicated. Dairy farmers have been delivering their July output at the record rate of 350 pounds a day per farm, according to production reports available to the administrator.

"The flow of milk," Dr. Blanford said, "has been running at an unusually high level for July. With the milk coming in at the daily average of 350 pounds per farm, productivity is breaking all records for the month in the New York milkshed. Five years ago, when July milk was pooled for the first time by the federal-state marketing program, the average daily delivery was only 264 pounds. "Our figures indicate, therefore, that the average farm's output has been increased practically 33 per cent since then.

"The effect of the increased productivity * * * has been to maintain at least up to now a milk supply in keeping with the metropolitan requirements."

June Uniform Milk Price

Administrator C. J. Blanford has announced a uniform price for the month of June of $3.12 per 100 lbs. for 3.5 per cent milk received from producers at plants in the 201-210 mile zone under the federal-state orders regulating the handling of milk in the New York Metropolitan marketing area. This is 3c below May and 9c above June, 1943. In addition, dairy feed payments at the minimum rate of 45c per 100 lbs. bring the total return to $3.57.

Sheffield June Milk Price

Sheffield Farms Co., Inc., announced a net cash price for 3.5 per cent milk delivered during June of $3.11 per 100 lbs. after deduction of 1c for association dues. This compares with a May net figure of $3.14 and a June 1943 price of $3.02. This applies to the 201-210 mile zone.

League June Pool Price

The Dairymen's League Cooperative Association average net paid pool return to producers for June was $3.06 per 100 lbs. for 3.5 per cent milk in the 201-210 mile freight zone. The comparable May figure was $3.09. The June, 1943, price was $2.94. Grade A premiums where earned are in addition.

June Minimum Prices

Basic prices for 3.5 per cent milk in 201-210 mile zones in effect in New York City Area under the Federal-State Marketing Agreement used by all handlers in figuring returns for June.

Class	per cwt.	butterfat differential
I	$3.70	.04
I (Outside)	.20†	.04
II-A	2.55	.073
II-B	2.43	.069
II-C	2.034	.058
II-D	2.198	.063
II-E	1.934	.055
II-F	1.934	.055
III	2.671	.076
IV-A	1.796	.051
IV-B	2.395	.056
V-A	1.260	.....
V-B	.710	.....

†Plus uniform price for June, 1943.

June Milk Receipts

NEW YORK METROPOLITAN AREA

	Receipts Rail and Truck 40-Qt. Cans		
	Milk	Cream	Cond.
June, 1944	3,690,287	92,593	41,139
June, 1943	3,656,173	84,275	29,562
May, 1944	3,705,998	88,392	39,065
May, 1943	3,542,459	81,282	33,271
Jan.-June, 1944	21,425,561	407,738	182,910
Jan.-June, 1943	20,574,896	384,380	176,275

PHILADELPHIA METROPOLITAN AREA

	Receipts Rail and Truck 40-Qt. Cans		
	Milk	Cream	Cond.
June, 1944	869,796	37,189	25,506
June, 1943	837,485	26,813	18,844
May, 1944	899,324	41,932	23,860
May, 1943	847,694	29,450	16,632
Jan.-June, 1944	4,754,122	172,801	110,849
Jan.-June, 1943	4,716,401	122,422	78,673

BOSTON METROPOLITAN AREA

	Receipts Rail and Truck 40-Qt. Cans		
	Milk	Cream	Cond.
June, 1944	732,089	40,007	16,986
June, 1943	677,955	50,247	20,080
May, 1944	677,022	41,956	14,910
May, 1943	672,715	47,709	17,093
Jan.-June, 1944	3,997,709	215,185	81,438
Jan.-June, 1943	3,853,722	242,783	85,056

WHY YOU SHOULD SELL VITAMIN D MILK NOW!

"This General Mills 'Dollars for Dairies' Conversion Plan is really swell—13 solid weeks of hard-hitting advertising!"

The purpose of the General Mills "Dollars for Dairies" Conversion Plan is to help you maintain your profits by gaining an extra price premium for every quart of Vitamin D Milk you sell.

To help you put over your Vitamin D Milk campaign, General Mills is offering an integrated 13-week advertising program which is virtually tailor-made to meet your merchandising requirements.

Especially designed to meet present conditions are posters, folders and bottle collars in full color. Tied in with display pieces are radio commercials, newspaper ad mats and layouts for newspaper advertising, doorknob pieces, letters to be sent to doctors and dentists and a booklet of instructions to routemen.

All promotion materials are available at cost in quantity lots and are available for both regular and homogenized Vitamin D Milk.

Plan now to take full advantage of the sales situation for Vitamin D Milk, using the "Dollars for Dairies" Conversion Plan. All factors favor increased sales of Vitamin D Milk now. There is a growing new market of women who are better informed about the health benefits of Vitamin D than any other vitamin. And, there is an outstanding need for Vitamin D Milk in the National Nutrition Program—Vitamin D is the only vitamin not found in diet-significant amounts in the recommended "Basic 7" food groups.

Don't wait. Send in the coupon today for complete information about Vitamin D (A. R. P. I. Process) and the "Dollars for Dairies" Conversion Plan.

GENERAL MILLS, INC.
SPECIAL COMMODITIES DIVISION
MINNEAPOLIS 15, MINNESOTA

Yes!

General Mills, Inc., Special Commodities Division AMR 8-44
400 South Fourth Street, Minneapolis 15, Minn.

Send me prices on your Vitamin D (A. R. P. I. Process) Concentrate in the size container best suited to my needs.

☐ I am now fortifying.....quarts milk—Homogenized ☐ Plain ☐ (check which)

☐ I am not now using Vitamin D. I have ☐ have not ☐ Homogenizer. I have.....routes.

☐ Send me full information about the "Dollars for Dairies" Conversion Plan for my Vitamin D Milk.

Name of Dairy.....

City.....*Zone*..... *State*.....

Signature.....

Cheese Supplies Freer

Production Now a Bit Above Last Year and Civilian Outlets Drawing Rather More Goods

American cheese production is still shrinking at a moderate rate, according to weekly government reports, with a small gain maintained compared with the same time last year. Somewhat tempered recent outlets for goods moving through regular channels, which are drawing the major part of the open market receipts. This is especially true with respect to the larger users.

Only regular customers are able to secure cheese at the first wholesaling ceiling, the bulk of the supply being merchandised under the service wholesalers' operation in order to obtain maximum mark-ups to compensate for drastically cut total volume.

As for a long time past, major civilian supply here comprises processed cheese, with relatively little natural Cheddar to be found.

WFA reports total acquisitions under the set-aside program of 67,525,940 lbs. American cheese May 1st-July 27th. Of this 6,686,473 lbs. has been reported transferred to WFA. That agency bought on the Wisconsin Cheese Exchange at Plymouth Friday afternoon 18 cars Twins and Cheddars, approximating 720,000 lbs., at the basic rate of 23¾c.

Rather freer supplies of domestic Swiss here, prices continuing to range very widely under the OPA's loose "period" control which still is in force.

AMEND PROTEIN MEAL ORDER

Washington, D. C.—The War Food Administration has approved an amendment to War Food Order No. 9 (formerly FPO 9, Rev. 3) with provisions designed further to improve the pattern of feed supply distribution. The amendment, which becomes effective immediately, revises some of the regulations governing the use of protein meal by mixed feed manufacturers.

Among the more important revisions from the existing order are:

1. Any manufacturer who used protein meal in the manufacture of mixed feed for sale prior to December 18, 1943, is now entitled to a minimum annual use of 60 tons of protein meal in the manufacture of mixed feed in 1944. This general provision will aid small feed manufacturers, relieving them of quota provisions up to the 60 ton minimum, and will simplify administration of the protein meal order. (The 60 ton minimum applies to each individual plant which used protein meal in the manufacture of mixed feed prior to December 18, 1943. Manufacturers whose quotas are affected by the minimum provisions must still fulfill the reporting requirements of the order.)

2. If urea was used in the manufacture of mixed feed during 1942 or 1943, it may be included in the computation of a manufacturer's protein meal quota for 1944—at the rate of 3 tons of protein meal per ton of urea. If urea is used during 1944 in the manufacture of mixed feeds, every ton so used after July 1 must be counted against the manufacturer's maximum permitted protein meal use—again at the rate of 3 tons of protein meal per ton of urea used.

HARRISON ORANGE GROWTH

Firm's Rapid Expansion Due to Rigid Quality Program

Monroe Harrison started in the orange juice business in Chicago twenty years ago, first opening the Orange Hut at 4700 Sheridan Road, followed by a second at 63rd St. and Cottage Grove Avenue and a third at the Morrison Hotel corner.

Monroe Harrison

It is reported that Mr. Harrison paid the highest rent of any rent ever paid in the United States for the same amount of space to sell an orange drink—$27,000 per year for 23 x 23 feet. The Morrison Orange Hut, however, was one of the biggest money makers in the whole chain and sold as high as 20,000 glasses in one day. Inside of two years Mr. Harrison opened 60 Orange Huts in the Chicago area.

During Harrison's rapid growth in Chicago his business naturally attracted vigorous competition but due to the maintenance of high quality in Harrison's product the competition did not prosper.

In a recent letter to the Review Mr. Harrison emphasizes that "quality counts and this is one reason that the Harrison Orange Corporation is enjoying a big business with dairies all over the United States".

Day-Ray Orange, a product of the Harrison firm, is said to be giving dairies an orange product that builds a repeat business.

INDIANA PROGRAM COMMITTEES

Will Work Jointly In Developing Annual Convention Plans

Two committees have been appointed to work jointly in setting up the program for the annual meeting of the Indiana Manufacturers Dairy Products Association and the Indiana Milk and Cream Improvement Association.

President Kingery has appointed the following committee as members of the Program Committee: C. L. Witham, Indiana Condensed Milk Co., Indianapolis; Earl Keedy, Schlosser Brothers, Inc., Frankfort; J. F. Hazelton, Beatrice Creamery Co., Muncie; Lester Hunt, Indiana Dairy Marketing Association, Muncie; Lyman Langford, Armour Creamery Co., Rochester, as an alternate member.

President Klepper has appointed the following members: W. Fred Atkinson, Ideal Pure Milk Co., Evansville; Don Kellum, Ballard Ice Cream Co., Indianapolis; Wm. Morgan, Tip Top Creamery Co., Vincennes; Homer T. Perry, Banquet Ice Cream & Milk Co., Indianapolis; C. D. Weissert, Schlosser Brothers, Inc., Plymouth, as an alternate member.

SCHOOL LUNCH PLAN

Washington, D. C.—War Food Administration officials have announced that continuation of national community school lunch programs for the 1944-1945 school year now is assured through specific appropriation by Congress of $50,000,000 for its conduct.

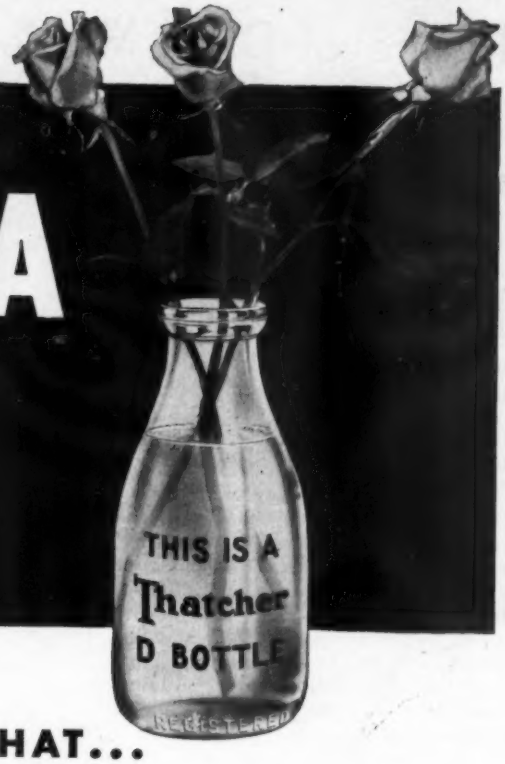
During the 1943-1944 school year, more than four million children in 31,000 schools throughout the nation participated in the federal-local program. Officials said the program for 1944-1945 would be similar to that of last year.

The school lunch program is designed to operate under local sponsorship of school boards or other school organizations, parent-teacher groups, civic groups and other non-profit organizations. WFA will reimburse local sponsors for their purchases of food up to a maximum amount determined by the type of lunches served. WFA will also make food available for distribution to schools under the program. Shell eggs are importantly included in this season's operations. All the foods will be purchased through the price support program.

TO BUILD WAREHOUSE

Springfield, Mo. — A two-story warehouse that will cover an area of 24,340 square feet will be erected by the Producers Creamery Company at the northwest corner of Phelps and Missouri, according to William T. Crighton, manager of the creamery.

WHAT'S IN A NAME?



SHAKESPEARE STATED THAT...
"A ROSE BY ANY OTHER NAME WOULD SMELL AS SWEET"

This may be true of roses but when it comes to milk bottles Thatcher is the only name that can boast. 60 years' experience in the making of milk bottles. In fact, Thatcher invented — made the first milk bottle.

Thatcher has the Know-how in making better milk bottles. If you have a milk bottle problem write to

THATCHER MANUFACTURING COMPANY
ELMIRA, NEW YORK

Factories: Elmira, N. Y. Lockport, N. Y. Olean, N. Y. Long Island City, N. Y. Streator, Ill.

SALES OFFICES IN PRINCIPAL CITIES

SEE WHAT YOU BUY—BUY IN GLASS

Thatcher
MILK BOTTLES

★ ★ ★ ★ ★ ★ BUY WAR BONDS ★ ★ ★ ★ ★ ★

Future of Dried Whole Milk Viewed by Prof. P. H. Tracy

Reasons for Competition with Fluid Fresh Product Pointed Out — Obstacles That Must Be Overcome to Gain Consumer Acceptance

DR. P. H. TRACY of the University of Illinois, in reviewing recently the future of the powdered milk industry, said—"To be successful, a new product or a new method must result in one or more of the following: (1) An improvement over the former product or method, (2) Greater convenience, (3) Lower cost".

"One of the limiting factors in the successful manufacture of powdered whole milk has been the development of a stale, oxidized flavor," he continued. It was pointed out that the complete solution of this problem is not in sight; however "sufficient progress has been made to enable one to predict that after this war is over methods for the manufacture of whole milk powder will be so far advanced that oxidation will cease to be a major problem".

The factor of convenience for the housewives was stressed. "The reconstitution of powdered whole milk by the housewife must be made simple enough that she will not object to the labor involved in mixing the powder with water." The importance of the degree of solubility of the powder was brought out in prominent position.

Relative Costs Considered

"Probably the most important factor related to the future success of powdered whole milk will be the relative cost of a quart of fresh whole milk and a quart of reconstituted milk," he stated. Under the present conditions the cost of a quart of reconstituted whole milk would be about 9-10 cents. Nine reasons were given to explain why it should be a simple matter for large scale manufacture of powdered whole milk to compete with fresh milk. The most important of these were—low margin of profit, centralized location, economy in production, handling, and marketing.

"Much criticism has been made of the powdered whole milk served our men in service—and rightly so." It was pointed out that few universities have been equipped to study such an important problem so that most of the experimental work has been done by industrial research laboratories—and these results are not always available.

Dr. Tracy presented a summary of the recent findings on the "oxidized flavor" problem which is under study at the University of Illinois. High prewarming temperature (170 deg. F. 20 minutes; 250 deg. F. 1 second), high concentration, lower copper, large particle size, packaging the powder hot, addition of antioxidants, low oxygen in the package, regassing with nitrogen after 24 hours and low storage temperature, all contribute to retardation of oxidation. "Peroxide value measurements will not accurately predict the keeping quality of the powder nor will it accurately indicate its immediate quality," he said.

Research and Education Essential

The potentiality of dried milk products in the post-war period includes uses in bread baking, ice cream industry, and for the manufacture of cultured milk and chocolate drinks, it was pointed out. Special dried milk products will be developed.

On the subject of consumer education, Dr. Tracy said, "To successfully sell dried milk products to the housewife will require a tremendous amount of expensive advertising".

That the future success of dried milk will depend largely upon research was indicated by Dr. Tracy when he said, "Much is yet to be done in the development of satisfactory methods of manufacture." There is also need for improvements in drying and packing equipment.

CONSUMER ACCEPTANCE

Chicago Housewives Try Dehydrated Foods According to USDA Survey

That some dehydrated foods may have a much better chance for survival after the war than has been generally believed is indicated by a survey made by the Department of Agriculture's Bureau of Agricultural Economics, the bureau reported July 26. This study of the consumer acceptance of dehydrated foods was conducted recently among 450 Chicago housewives and their families.

The investigation was made primarily to indicate possible post-war outlets for dehydrated foods, of the type now being processed for military and lend-lease use in the greatly expanded facilities of the industry.

Without attempting to influence the attitude of the housewives, each was given samples of dehydrated foods with directions for use, and told the interviewer would return in two weeks. The foods used in the survey were milk, eggs, potatoes and other vegetables. About three-fourths of the housewives had heard of dehydrated foods and nearly half had used them in some form or other. Only about 5 per cent had an unfavorable opinion of dehydrated foods prior to the survey.

With more than half of the housewives participating in the survey indicating willingness to buy some dehydrated foods, comparisons of cost with the canned or fresh product did not appear to be the decisive factor. Housewives expressed willingness to buy such foods chiefly because they liked the taste or found them easy to prepare, although other advantages such as space saving also were mentioned. About three-fourths of the houeswives using the foods liked their taste. Housewives who liked the foods indicated their willingness to buy them in the following order of preference: Cranberries, eggs, sweet potatoes, beets, milk, carrots, diced potatoes, and riced potatoes.

TRUCK TIRE OUTLOOK

J. E. Powers, manager of the truck and bus tire department of the B. F. Goodrich Company in a recent booklet, "Today's Truck Tire Outlook," states as follows:

"While I believe that after we have passed the critical summer months there will be decided improvement in the large truck tire situation, we are facing an extremely serious situation right now, which will tax your resourcefulness to the utmost.

"After that time large truck tires, from the industry's huge expansion program, should start coming in and the situation will gradually get better.

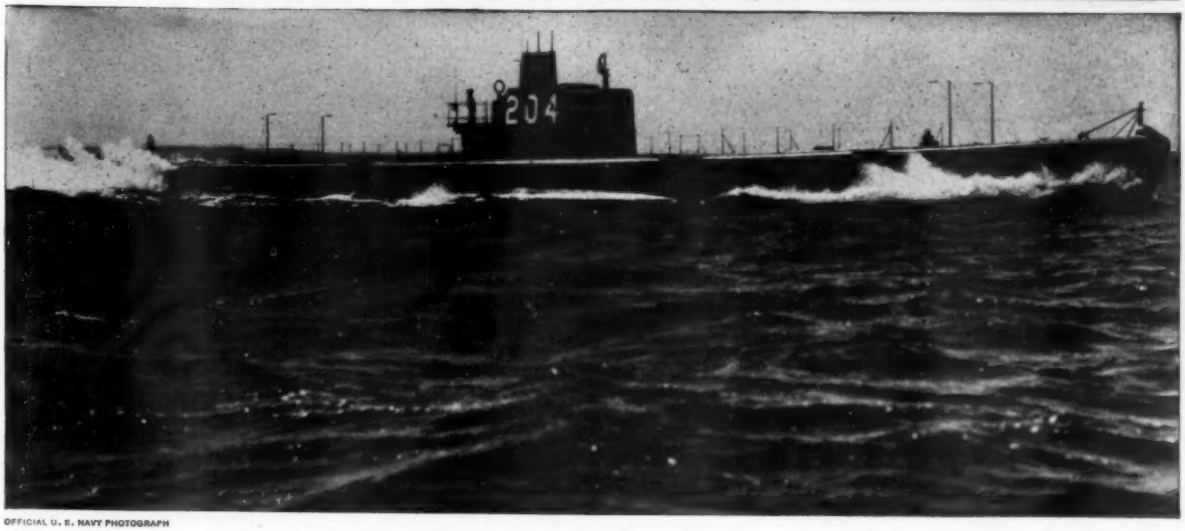
"In the meantime, baby your tires today as you never have before. Don't overload. Don't run under-inflated or over-inflated. Match your duals. Switch tires regularly. Recap in time. Have every tire inspected regularly for small cuts and bruises that need repair.

"You must keep your tires *up*—if you don't want your trucks to be *down*."

FROZEN MILK FOR ARMY USE

Col. George F. Spann, commanding officer of the army quartermaster depot in Jersey City, reported recently that frozen milk with Vitamin D added, packaged in five-gallon cans, is being shipped for beverage use by patients aboard hospital ships, some of which are in tropical waters.

BOTH do a real job



OFFICIAL U. S. NAVY PHOTOGRAPH

Navy specifications and inspections are tough, especially where submarines are concerned, but R. G. Wright has met them with distinct success. Not a single rejection or failure on hundreds of special valves made up of thousands of parts.

The lessons we have learned in this type of production have been extended to the manufacture of machinery and equipment for the dairy industry. You can now expect even better coolers, pasteurizers, pumps and washing equipment when you ask for Wright. While such production is limited—Navy and Air Corps come first—the real needs of milk plants come next. This has been our business for fifty years.

R. G. WRIGHT COMPANY, Inc.

2933 MAIN STREET, BUFFALO 14, NEW YORK

MANUFACTURERS of

PASTEURIZERS
CAN WASHERS • BOTTLE WASHERS
SURFACE COOLERS
RECEIVING TANKS • WEIGH CANS
and other equipment

for the Dairy Industry

Milk Plant Problem

Prof. S. T. Coulter of University of Minnesota Advises on Proper Acidity Test Procedure

QUESTION—Does it make any difference how much indicator is used in the acidity test? I have seen instructions that state to use 2 or 3 drops, others that call for 3 to 5 drops, and still others that call for 10 drops.

I tried it out myself and found an acidity of 0.16 per cent for a sample of milk using 3 drops of indicator and an acidity of 0.14 per cent using 10 drops of indicator.

What is the correct procedure? How much indicator should be used?

—Creameryman, Minnesota.

ANSWER—As you have observed, the results of the acidity test are definitely influenced by the amount of indicator used. You might like to compare your own data with those of others. The data in the following table are taken from an article by Davis and Sadek of the National Institute for Research in Dairying in England. Similar results have been secured by workers in this country and New Zealand.

TABLE I

Amount of indicator (0.5%) for 10 ml. milk	Titratable acidity per cent lactic acid	pH of end point
1 drop	0.192	8.87
0.1 ml.	0.177	8.71
0.25 ml.	0.168	8.52
0.5	0.163	8.48
0.75	0.158	8.38
1.0	0.153	8.28
1.5	0.150	8.26
2.0	0.148	8.20
2.5	0.145	8.12
3.0	0.143	8.10
3.5	0.140	8.08
4.0	0.138	8.06
4.5	0.138	8.05
5.0	0.138	8.05

These data show that the results of the acidity test may be influenced as much as 0.05 per cent by the amount of indicator used. Also shown in the table are the pH values of the end-point in the titrations with different amounts of indicator. You will recall that fresh milk has a pH of about 6.5. As milk sours the pH is lowered.

Determines Amount of Alkali

The acidity test actually determines the amount of alkali which must be added to shift the pH of the milk to that at which the phenolpthalein is colored sufficiently to impart a detectable pink color to the solution. The larger the amount of indicator present the lower the pH at which the color becomes detectable, consequently, the less the amount of alkali required. It is readily apparent, therefore, that the amount of indicator must be standardized if the results of the test are to be comparable from time to time and from laboratory to laboratory.

The data given in the table show that if as much as 4 ml. of a 0.5 per cent solution of phenolpthalein are used for 10 ml. of milk, increases above this amount do not change the results. This "saturation" level might be scientifically ideal, but is unnecessarily high. At the two- or three-drop level the addition of an extra drop or two would have a measureable effect on the end-point in the titration. If as much as 1 ml. of a 0.5 per cent phenolpthalein solution is added for each 9 grams, of material titrated, a drop or two of indicator one way or the other would probably not influence the results of the test.

For this reason various workers have suggested that the amount of indicator to use be standardized at this figure. In practice, however, there is absolutely no uniformity in the methods used. I think it is highly desirable that the details of the acidity test,—not only with respect to the amount of indicator, but also with respect to dilution with water, method of measuring the sample, and determination of the end-point, etc.,—be standardized.

In our own laboratories we use 1 ml. of a 0.5 per cent solution of phenolpthalein for each 9 grams of material titrated. Thus, in the acidity test for milk, where 17.5 ml. of sample is frequently used, we add 2 ml. of indicator. A second burette for the indicator solution provides a convenient method for measuring the indicator.

GLASS CONTAINERS EASED

Restrictions on Certain Bottle Closures Ruled Quota-free

The use of glass containers for the packing of most foods, drugs and health supplies (formerly under quota) in most instances is now unlimited, WPB announced July 18.

Closures for glass containers, while still under some restrictions when made of prime blackplate or tinplate, are expected to be available for the increased quantity of jars and bottles. Aluminum and blackplate rejects are now quota-free when used for glass container closures, whatever the product. To obtain aluminum, the manufacturer files only a CMP-4 form, the standard application for aluminum. Under the new ruling, aluminum is available, without regard to quota, to make closures for any glass-packed product.

An important change in the order increases the small users' quota from $500 worth of glass and an equal number of closures to seal this glass to $2,500 worth of glass and caps combined. Of this $2,500, not more than $1,000 may be used for the purchase of closures. This provision will enable many small packers and bottlers throughout the country to operate more freely than under strict limitations formerly placed on them, WPB said.

SIMONET HEADS FIELD SERVICE

Robert A. Johnston Company Representative to be Liaison Man

Appointment of R. A. Simonet as manager of field service for the Robert A. Johnston Company, chocolate and cocoa division, has been announced by Oliver P. Petran, manager of the division.

R. A. Simonet

In the newly created position, Mr. Simonet will travel throughout the United States working with dairies, ice cream manufacturers, bakeries and restaurants on special production or service problems. In addition, he will act as liaison man between the Johnston sales force and production department.

As the former Chicago district manager for Johnston, Mr. Simonet gained wide experience in specialized service to dairies and ice cream manufacturers in the Chicago area.

BROCKENBROUGH ADVANCED

Succeeds Irving Reynolds in OPA's Rationing Division

Appointment of Eugene W. Brockenbrough, of Charlotte, N. C., as chief of the Fats, Oils and Dairy Products Branch of the Office of Price Administration's Food Rationing Division was announced July 28, by Ivan Burdick, director of the division.

Mr. Brockenbrough, who formerly was assistant chief of the branch, succeeds Irving C. Reynolds. Mr. Reynolds has joined the Office of the Quartermaster General as special adviser to the office in charge of Chicago field headquarters, Perishables Branch of the Subsistence Division.

The new branch chief has been closely associated with the dairy industry for many years. He has operated creameries. During the last 10 years before joining the OPA, Mr. Brockenbrough was associated in an administrative capacity with Schoenith, Incorporated, and affiliate corporations.

He left private industry in April, 1942, to join the staff of the OPA National Office in Washington. He was one of those who helped organize the Fats, Oils and Dairy Products Rationing Branch.

SCHOOL CHILDREN PICK KRIM-KO

BEST-TASTING CHOCOLATE DAIRY DRINK

1. PAPER CUPS ARE MARKED FOR TASTE TESTS

2. VOTES ARE CAREFULLY RECORDED

3. KRIM-KO WINS AGAIN 2 TO 1

IN NATIONWIDE TASTE TESTS KRIM-KO CONTINUES 2 TO 1 AMERICA'S FAVORITE CHOCOLATE DRINK!

Since school children make up such a large part of the chocolate dairy drink market, Krim-Ko was taken right into the classroom for testing—and here's what happened! *Children everywhere* gave KRIM-KO the same overwhelming vote of approval as service men and war workers—they voted it their *favorite chocolate dairy drink by a 2-to-1 majority!*

They say, "KRIM-KO *tastes* better, that's why we like it best." But this proven superiority of flavor is no accident. It is the combination of hard work and endless diligence by the staff of experts in the great, modern KRIM-KO laboratory. Day after day, these experts are on the watch to retain or improve the delicious, rich flavor that has made KRIM-KO the favorite chocolate dairy drink of the nation. A folder describing this remarkable laboratory and its staff of experts is yours for the asking. Drop a letter or post card to KRIM-KO, Dept. 327, 4830 S. Christiana Avenue, Chicago 32, Illinois.

KRIM-KO CHOCOLATE DAIRY DRINK

Short-Time – High-Temperature Methods of Milk Pasteurization

Dale Gillespie and A. M. Palmer Outline and Describe Two Most Successful Applications at Conference Held at College of Agriculture, University of Connecticut★

★At the recently held conference sponsored by the Dairy Industry Department, College of Agriculture, University of Connecticut, for milk inspectors and processors, a number of highly informative and educational papers were delivered by competent authorities pertaining to the subject of short-time—high-temperature pasteurization of milk.

Importantly included among them was one submitted by Dale Gillespie of the Creamery Package Manufacturing Company that outlined and described the short-time—high-temperature method and equipment utilizing steam and hot water, and also one by A. M. Palmer of the Trumbull Electric Company that described the Electro-Pure equipment utilizing electricity as the heating medium.

In view of the fact that the short-time—high-temperature method of milk pasteurization is gaining so much favor among milk processors the full texts of the papers delivered by Messrs. Gillespie and Palmer are presented herewith.

Steam S-T—H-T Pasteurization of Milk

(By Dale Gillespie, Creamery Package Manufacturing Co.)

THE OPERATION of a steam high-temperature—short-time pasteurizer is more easily explained by the use of a schematic flow diagram. While this flow diagram was made to cover a Creamery Package full-flow short-time pasteurizer, the flow of the milk is similar in all other types of steam-plate pasteurizers. The raw milk is sucked from a small supply tank located below the level of the machine, through the regenerator, to the positive raw milk pump. The milk is pushed from this raw-milk pump through the heater section into the holder tube. The milk passes through the holder tube to the flow diversion valve, which is nothing more than an air-operated three-way valve.

If the milk is under 161 deg. F. when it reaches the end of the holder tube, it is automatically diverted back to the raw-milk tank and put through the unit again. If the milk is over 161 deg. when it reaches the end of the holder tube, it is forced through the pasteurized milk side of the regenerator, and on through the cooler section, from which it is discharged to the line feeding the bottler or storage tank.

Water which is preheated by steam is circulated on the sides of the plates opposite the milk in the heater section. This hot water is usually 2 deg. above the final temperature of the milk, and since it is at a pre-controlled temperature, the final milk temperature will be controlled. Cooling is accomplished by circulating a cooling medium such as brine or refrigerated water on the opposite side of the cooler-plate. This cooling medium is automatically controlled in the case of brine. Since the differential between the brine and the milk is very small, this results in a controlled milk temperature.

Comparison of Steam and Electric Pasteurization

The only difference between steam pasteurization and Electro-pure pasteurization is in the method of heating. With modern control instruments, accurate control can be expected from either unit. Ordinarily, control within .2 of a degree above or below the set point can be expected.

Steam offers many advantages as a heating medium in the processing of milk through a high-temperature—short-time pasteurizer. The biggest single advantage is the lower operating cost for heating. The familiarity of the plant personnel with steam, which is normally used as a heating medium, also makes it desirable.

Steam is normally required in a plant for the operation of the bottle washer, can washer, and for heating other prod-

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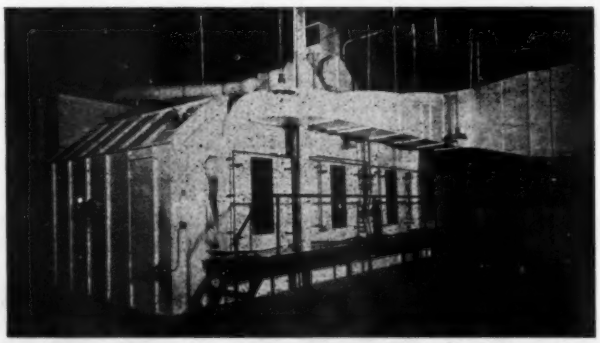

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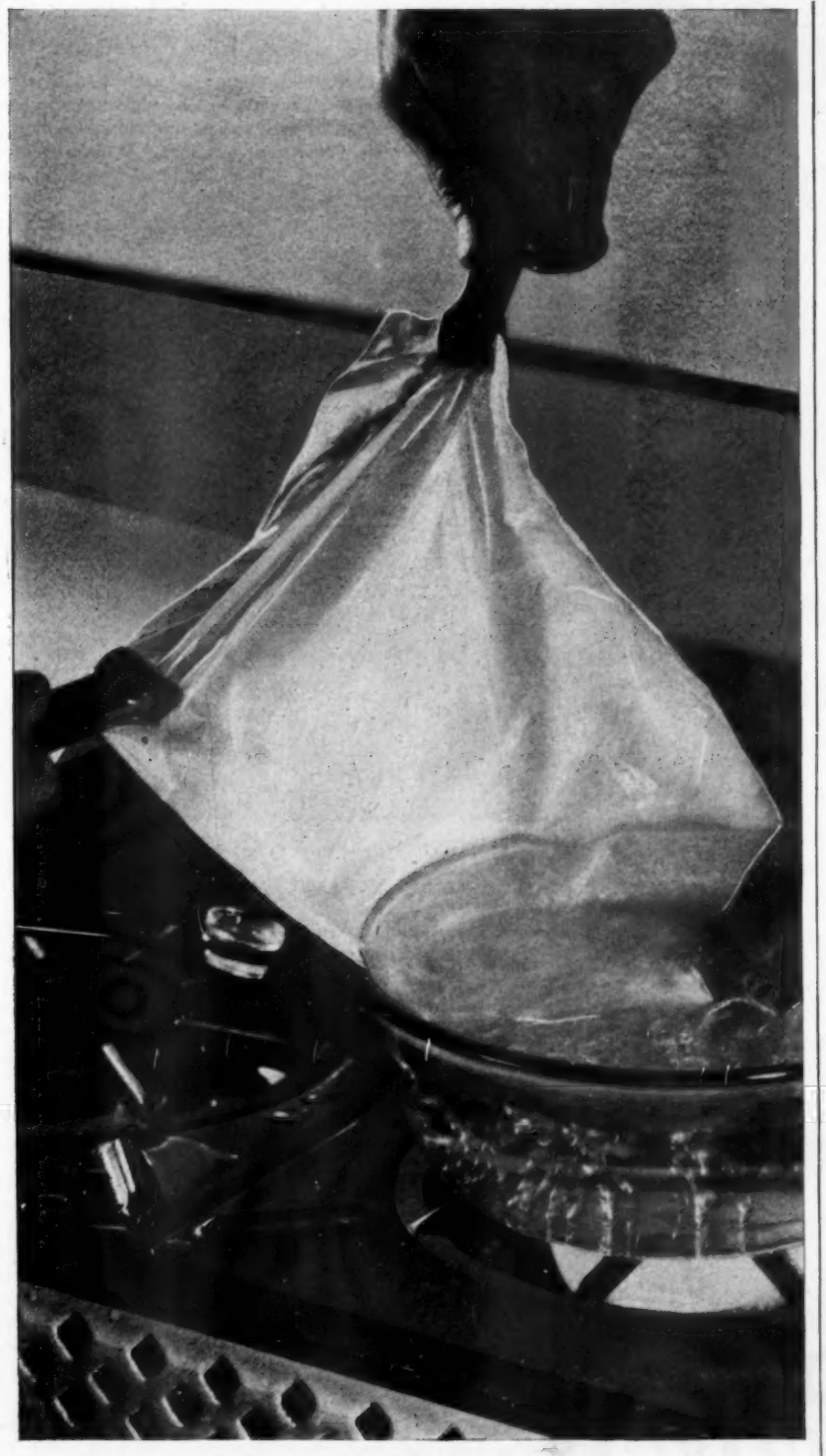

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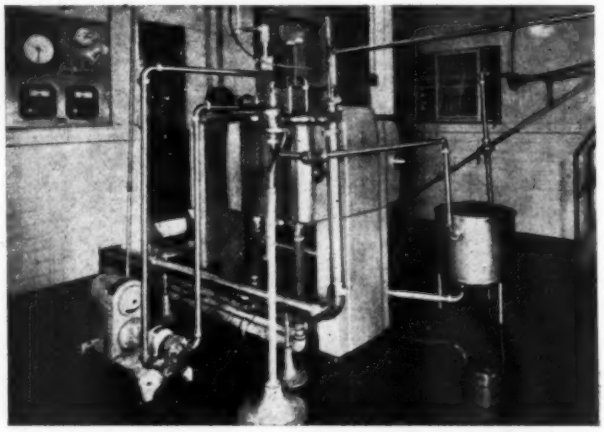
ucts which cannot be satisfactorily processed in a short-time—high-temperature pasteurizer. The high-temperature-short-time pasteurizer usually represents one of the smaller loads in the plant, and use of steam for this pasteurizer works out advantageously without greatly increasing the boiler capacity.

Application of Short-Time Pasteurizers

The enthusiasm for something new and the sales promotional work which normally accompanies any new piece of equipment has resulted in many plant operators believing that the high-temperature—short-time pasteurizer is the answer to all their processing problems. Unfortunately there is no single answer to plant processing problems.

Along with its many good features, high-temperature-short-time pasteurization has definite limitations. Many plant operators have installed a high-temperature—short-time pasteurizer only to find that they have acquired another piece of equipment to maintain and clean without eliminating a single piece of the equipment which they formerly used for processing milk. While it is not possible to draw an exact formula



Compact HTST Installation at Knudsen Creamery, Los Angeles

to determine when a short time pasteurizer should be used and when it should not be used, we shall attempt to give some of the limiting factors which should assist the plant operator in determining whether a high-temperature-short-time pasteurizer is desirable.

A high-temperature-short-time pasteurizer is most satisfactory when operated at a steady flow rate. Frequent shut-downs or operation at reduced capacity result in a lower cream volume and in over-heating of the milk. In plants which lend themselves to high-temperature-short-time pasteurization operations, almost all of the shut-downs or periods of operation at reduced capacities can be eliminated by intelligent planning of the processing.

Steady capacities are not always easy to maintain where a single filler is used to fill a large number of one-half pint and third-quart bottles as well as full-quart bottles A machine that is engineered to operate satisfactorily when the bottler is handling quarts results in an over-capacity of milk when the plant is filling one-half pint, or one-third quart bottles. In some cases this difficulty can be overcome by arranging to fill cans of milk during the time when the one-half pint and one-third quart bottles are being handled by the fillers.

High-temperature—short-time pasteurizers are ordinarily not as desirable where the milk run is very short. The longer the milk run on a short-time pasteurizer, the greater the saving that can be effected. While this is a generalization that can be applied to any piece of equipment, it is more apparent in the case of a short-time pasteurizer, where the clean-up

time is the same whether the unit is used one hour or sixteen hours.

Large Capacity Advantages

Ordinarily high-temperature–short-time pasteurizers are not as adaptable for very small capacities, since the clean-up time is almost the same for a 4,000-pound unit as the 16,000-pound unit. The plates in a short-time pasteurizer are cleaned by the circulation of a cleaning solution, so that the actual scrubbing time spent in brushing plates is very low. Most of the time required for cleaning a short-time pasteurizer is spent in assembling and disassembling the unit. Aside from the number of plates, the number of parts in a 4,000-pound unit equals those in a 16,000-pound, or large unit.

A high-temperature–short-time pasteurizer does not ordinarily lend itself to the processing of by-products. Buttermilk or other cultured products must always be handled in vats. While some plants are processing chocolate milk through a short-time pasteurizer, most plants are not satisfied with the product processed in this manner. The long hold at high temperature seems to improve the flavor of the product. The product loss in processing very small volumes of cream makes this operation undesirable with the plate-type unit.

In small plants, tanks are frequently used for many purposes. They may be used for holding the raw milk when it is received, and then for pasteurizing it. Following this, they may be used to set up the buttermilk, which is bottled prior to the receipts of the milk on the following morning. After the regular run of milk, the tanks may be used for handling chocolate milk and cream. Since the milk or other products are pumped directly from the tank and through the cooler, they may be handled without the need of a pasteurized product surge tank.

When a short-time pasteurizer is used, it is necessary to have some form of a holding tank for the milk before it enters the pasteurizer. It is also necessary to have a pasteurized milk balance tank to hold the milk after it has been pasteurized. The type and location of tanks used for storage purposes ordinarily makes their use impractical for other purposes.

Only after a very thorough study of each individual plant operation is it possible to determine whether a high-temperature–short-time pasteurizer is adaptable. No set formula can be set up which will determine whether or not a short-time pasteurizer should be purchased. While a high-temperature–short-time pasteurizer has certain limitations, they also have inherent advantages which made them the popular piece of equipment that they are. The biggest single advantage is the completely automatic operation provided by controls which have proven thoroughly reliable.

Advantages of a High-Temperature Short-Time

Human errors and short-comings in controlling the processing are eliminated by the instrument used on high-temperature–short-time pasteurizers. The process is uniform from day to day and from hour to hour, when the unit is operated at the capacity for which it was engineered. When the pasteurizer is properly engineered and operated at its rated capacity, the cream volume will be uniformly large and the flavor of the raw milk will be unimpaired.

In plants which lend themselves to efficient short-time pasteurizer operations, substantial savings in refrigeration, fuel, and labor can be shown. Frequently the installation of a high-temperature–short-time pasteurizer will eliminate the necessity for purchasing a larger boiler or additional refrigeration. The use of regeneration for heating and cooling results in the elimination of the water necessary for cooling. In areas where water is a problem, this saving will frequently

The MONO-GRAM

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Published in the interest of the trade by
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Why, fumes the buck private in his spanky uniform, does the cafeteria always have to put the pineapple below the cottage cheese? Jab into it, and — squirt. A spot on your blouse. Whereas if chopped up and scattered over the top, he would remain fit for inspection.

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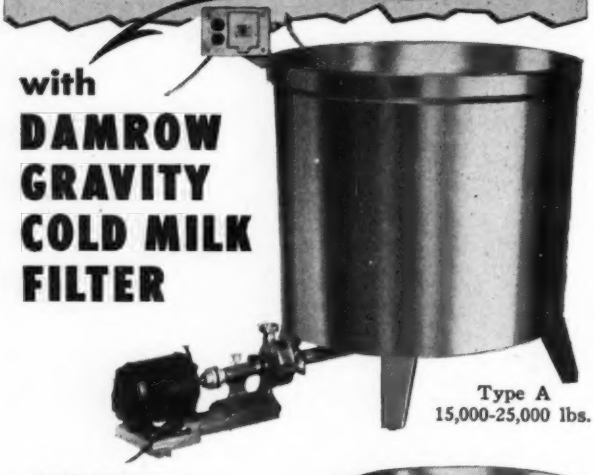

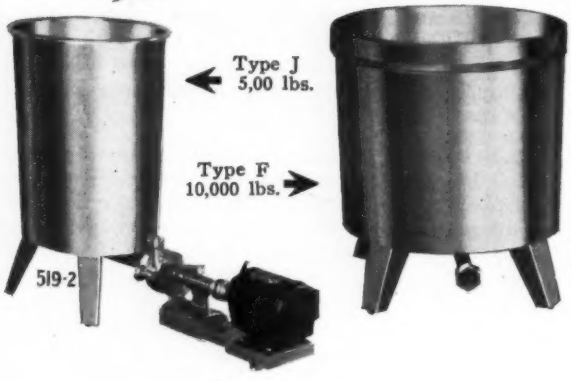

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out-weigh all others.

The continuous operation of a short-time pasteurizer will speed up the bottling operation by eliminating interruptions between batches of milk. Where a batch system of pasteurization is used, the bottling operation is frequently shut down for a few minutes rest period. In a continuous pasteurizer such a shut-down does not occur because the pasteurizer would get ahead of the bottler. Actual field experience has shown that a reduction in the bottling time of milk usually follows the installation of a high-temperature–short-time pasteurizer.

The labor savings resulting from the use of the short-time pasteurizer over the batch system is quite sizable when the run is long and the rate of flow is sufficiently high. Since the clean-up time is practically the same for small units, or for short runs, as it is for large units or long runs, this works to the advantage of plants where the more economical runs are possible.

Maintenance of Equipment

Since maintenance today is one of the most difficult and important problems, plants which own short-time pasteurizers should follow a definite service plan in order that they may realize the best possible service from their unit. While the instruction manual accompanying your machine is the best source of information on the proper care for it, special emphasis should be given to the following points.

When installing a new piece of equipment such as a short-time pasteurizer, have your plant engineer or plant maintenance man who is to be responsible for this piece of equipment present at the time the installation is made. Encourage him to ask questions, so that he thoroughly understands the operation of each component part of the equipment.

Make certain that the instruction manuals are in the hands of the parties who will operate and service the machinery. You will find that the equipment manufacturers will be more than willing to give you extra copies of the instruction manuals should you need them.

Set up a regular maintenance schedule. Check the gaskets weekly. Re-cement any loose portion of the gaskets promptly. Use only the cement and the procedure recommended by the manufacturer of your equipment. Many of the gaskets supplied today are made of synthetic rubber which requires special adhesives to properly cement them to the plate. The cement supplied for one manufacturer's gaskets may not be suitable for use with another manufacturer's gaskets.

Instrument Care Important

Take out a service policy on your instruments. If this is not possible, or if this service is not offered by the instrument manufacturer who supplied the instruments on your unit, have your maintenance man study the instruction manual carefully and give the instruments regular service himself. While the instruments supplied with short-time pasteurizers are very reliable, they do require a certain amount of service if they are to be maintained in satisfactory operating condition.

Regularly wash the water and brine sides of the plate in your milk unit. Stainless steel will corrode if it is not kept clean and polished. Even with the most corrosive water or brine, very little trouble is experienced where the plates are cleaned daily. These plates may be cleaned by circulating the same milk stone remover used on the milk sides of your plate. Ask your manufacturer to give you definite instructions for circulating these plates.

If you have a brine cooler keep the brine neutral or slightly on the alkaline side. Use a di-chromate inhibitor in your brine. Keep all air out of the brine. Frequently the brine

is dumped back into the brine tank above the level of the brine and a large amount of air is incorporated in the cold brine. This air makes the brine very corrosive. Excellent books on how to properly maintain brine are available from the Solvay and Dow Chemical Companies. These books are free for the asking and give detailed information on how to properly maintain the strength of the brine as well as how to reduce corrosive action.

Finally, above all else, do not be afraid to write the manufacturer of your equipment regarding any question which you may have on the proper maintenance or operation of the unit. Field men for equipment companies are constantly checking these units in the field and from their observations come new ideas on how to best take care of the units. If you have some particular problem which is causing you difficulty, possibly these field men have found the answer in some other plant, and the information would be available to you for the asking.

The Trumbull Electro-Pure Pasteurizer

(By A. M. Palmer, Trumbull Electric Manufacturing Company)

THE ELECTRO-PURE PASTEURIZER utilizes the methods of pasteurizing generally known as high-temperature–short-time, in which every particle of the fluid being pasteurized is heated to a temperature of 160 deg. F. or more, and maintained at such temperature for at least 15 seconds.

The various types of equipment using the high-temperature–short-time method may be divided into two groups as regards the heating process; one group using electricity and the other using hot water.

The Electro-Pure, as implied by its name, uses electricity. The essential parts of this equipment are the electrode chamber where the milk is brought up to the desired temperature, and the automatic electrical control which operates to maintain a constant temperature at the desired point, regardless of ordinary fluctuations in power supply or the variations usually found in the raw milk supply such as, changes in temperature, mineral content or butter fat. The pasteurizer is designed as a complete unit, and in addition to the electrode chamber and the control includes:

A plate regenerator giving an added economy of operation by effecting a heat exchanger between the cold raw milk and the hot pasteurized milk.

A plate cooler giving rapid and efficient cooling of the finished product.

A ballast tank which regulates the flow of raw milk to the unit from the supply tank, and insures a constant head on the milk pump.

A motor-driven, positive type milk pump which sucks the raw milk through the regenerator and pushes it through the rest of the system at a steady, constant flow.

A tabular holding section designed and engineered to accomplish the required holding period.

A recording thermometer equipped with flow diversion control. An all-electrically operated flow diversion valve in which the metal parts of the valve are all stainless steel.

The cabinet to house the control, and the necessary piping to connect the previously mentioned parts into one complete unit.

Not a New Development

Although not widely known until recent years, electric pasteurization is not a new idea. A complete history would take too much time, but it is interesting to note that electrical pasteurization was performed in England by J. M. Beattie and F. C. Lewis in 1911, and that in 1914 two electric pasteurizers were in operation in the United States.

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These early electric pasteurizers showed the need for an automatic temperature control and a means to prevent underheated milk from being bottled. Improvements were gradually made until in 1937 a new unit, the Trumbull Electro-Pure, appeared. This unit incorporated a constant rate of flow, an automatic electrical temperature control, and a contact thermometer to stop the milk pump as a means to prevent the underheated milk from being bottled. In 1939 the contact thermometer was discarded and the flow diversion valve method adopted.

Since that time the equipment remained basically the same, but there have been some refinements made that not only are improvements from a public heath standpoint, but the unit has been streamlined which has made for greater ease and economy of operation, such as developing the automatic-key all-electric flow diversion mechanism, increasing the possible hourly capacities of the units and grouping the parts closer together to form a more compact unit, with all controls and all parts housed from one cabinet on one base. It is this "unit type" Electro-Pure that I would like to describe to you today.

Automatic Controls

Tracing the flow of milk through the unit; it starts at the ballast tank which contains a ball float valve controlling the flow of milk from the storage tank and maintaining a constant head. From the ballast tank it is sucked through the raw regenerator plates by the positive type motor-driven milk pump. From the pump it is forced through the rest of the system, passing through the electrode chamber, where the heating takes place, and then through the holding section to the flow diversion valve. Just upstream from the flow diversion valve and at the end of the holding section, the milk passes an indicating thermometer and a recording thermometer. The recorder makes an inked record of the temperature at the end of holding time and also activates the flow diversion mechanism to either forward or diverted flow, depending upon whether the temperature at this point is above or below 160.5 F. If below 160.5 F., the valve automatically acts to divert the milk to the raw supply. If above, the valve acts to send the milk forward through the pasteurizing regenerator plates and the final cooling plates, and to the bottle-filler or other equipment as desired.

Now to go back to the electrode chamber. This is where the milk is heated as it passes through the chamber, and is one of the major differences between Electro-Pure and all other types of high-temperature–short-time equipment. An alternating electric current is passed through the milk as it travels upward between the carbon electrodes, and due to the resistance of the milk to this passage of current, the milk is heated within itself, instantly and uniformly through all portions, and to the correct amount. Due to this method of heating there are no heating surfaces or so-called hot surfaces; the hottest point in the entire system is the milk itself while it is passing through the electrode chamber. Consequently there is no danger of cooked flavor in products using this method.

Water is kept running over the outer surface of the carbon electrodes. This is not a cooling water, but rather a wetting water to insure even distribution of electrical energy over the entire carbon electrode. Only enough water is needed to entirely wet the outer surface of the electrode, and this water may be any temperature up to 100 deg. F.

If we were to look at a section of the electrode chamber taken at the top of the core, we would see the rectangular opening in the center through which the milk passes. Two sides of this opening are formed by the carbon electrodes, and the other two sides by the glass pieces which insulate the carbons from each other. Then there is the water inlet from which water is sprayed on the backs of the electrodes

and the carbon supports in the water passage, which add strength to the electrodes.

Measurement of Temperature

In Electro-Pure the temperature control is achieved by measuring the actual temperature of the milk itself immediately as it leaves the electrode chamber. This is done by what is called a bulb and bellows—actually another form of thermometer, except that instead of indicating temperature on a dial or recording it on a chart, it acts to expand a bellows and by so doing instigate a change in the electrical control which is immediately effective in changing the power passing through the milk in the electrode chamber. It is through this method of sensitive and extremely rapid electrical response to any change in temperature that the highest precision of control is achieved in maintaining the temperature at the correct point. This control is entirely automatic and requires no auxiliary equipment.

The holdings section is composed of a number of sanitary pipes welded into headers and equipped with manifolds, so that the milk travels through it to the flow diversion valve. This holding section is designed so that it will take the milk at least fifteen seconds to travel through it from the point of final heating to the flow diversion valve.

The flow diversion valve is operated by an electric solenoid. Of course, in normal operation this mechanism is controlled by the activating mechanism in the recorder which sends power to the solenoid at 160.5 deg. F. ascending temperature, and cuts power off at the same point on descending temperature. The entire mechanism is normally protected with a cover which is sealed.

Auto Key Mechanism

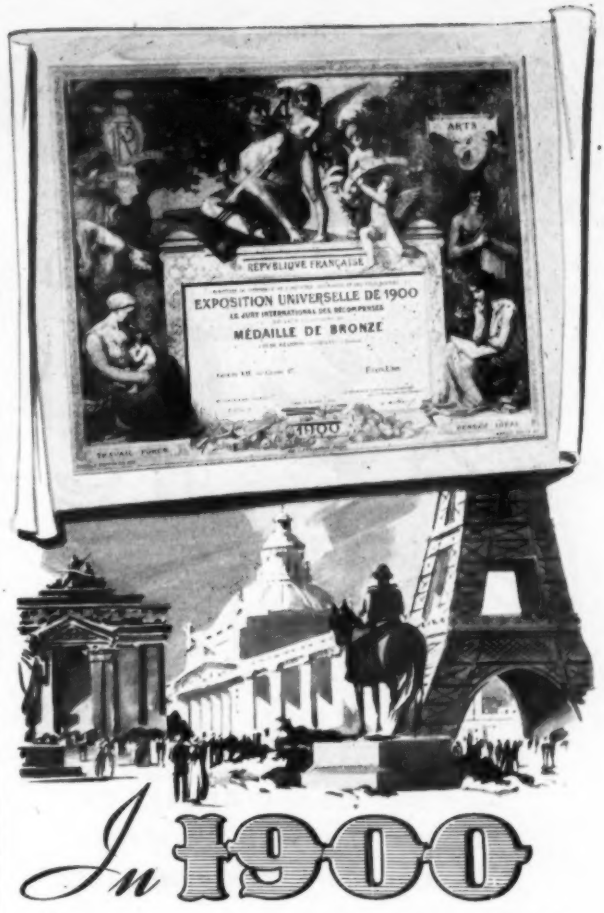
In order to wash the valve after the day's run when the rest of the unit is dis-assembled, the key is pulled, disconnecting the mechanism shaft from the valve shaft. When the valve is re-assembled and placed in position, these shafts remain disconnected until the power is turned on to start operation. Then the auto-key mechanism goes into action. When the key is out and power is turned on the unit, the micro switch acts to send power to the solenoid, but cuts off power from the electrode chamber and the pump motor. This brings the mechanism shaft down to the correct key engaging point, the key slides into place of its own accord. This key movement changes the micro switch so that power is now cut off the solenoid and sent to the electrode chamber and pump motor. This is assuming that any fluid in the unit is under 160.5 deg. F. Pulling the key while fluid is above 160.5 deg. F. will result in the same action, except that power is always on the solenoid before and after the key is pulled, due to the action of recorder control above 160.5 deg. F.

Briefly, the power will be turned off the electrode chamber and pump motor, stopping flow whenever the key is pulled, and the mechanism will be in position for self-engagement of the key when it is released. Electric solenoid actuated flow diversion valves are entirely automatic and require no auxiliary equipment.

Electro-Pure equipment will pasteurize milk, chocolate milk, ice cream mix and heavy cream.

We have an actual installation of two Electro-Pure Cream Pasteurizers synchronized with the output of two De Laval Separators at P. W. & C. V. Dake Company, Saratoga Springs, N. Y. These pasteurizers have been known to operate twenty-two hours a day continually for weeks, stopping only long enough each day to wash up and start over again .

Single Electro-Pure units are manufactured in capacities from 150 gallons per hour up to 900 gallons per hour, and may, of course, be installed in any multiple combinations of capacities.



In 1900

BUHL MILK CANS WERE AWARDED THE BRONZE MEDAL AT PARIS EXPOSITION...

● By 1900, Buhl had been manufacturing modern milk containers for 12 years. In many foreign countries, city after city used this dependable American product, and Buhl was rapidly becoming the standard of the world for protective milk containers. At Paris, in the great 1900 Exposition, Buhl received high honors. This was but one of many such awards bestowed on America's finest milk container.

Three Victory Models are available today. When peace comes a complete line of Milk Cans, Pails, Strainers, Ice Cream Cans, etc., will again be available.

QUALITY BUHL SINCE 1888

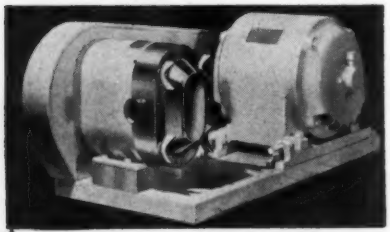
THE HUMBLE MILK CAN THAT BUILT A GREAT INDUSTRY

BUHL MANUFACTURING CO. • DETROIT, MICH.

And you prevent AERATION in processing with Waukesha 100% Sanitary Milk Pumps

Avoiding churning, agitation, aeration is one important quality-protection feature that thousands of dairies appreciate in Waukesha 100% Sanitary Milk Pumps. Even under high capacity pumping, the Waukesha pump's slow speed rotary type of operation, and its "positive displacement" pumping action assure that milk coming *out* of the pump is in the same smooth-flowing state as it was at the *inlet* . . . free of bubbles, foam, or churned butterfat.

Add to this advantage the precision-engineered durability, and power-saving efficiency always built into the Waukesha 100% Sanitary Ball Bearing Pump, and you have milk handling efficiency that more than pays its own way in your plant. If you urgently need pump replacement now, we can help you. Ask your jobber for details.



Sold by leading jobbers everywhere. Pioneered in the Food and Dairy Industry by Waukesha.

ARMY E NAVY

WAUKESHA FOUNDRY COMPANY
WAUKESHA • WISCONSIN

Waukesha 100% SANITARY PUMPS
DEPENDABLE PRODUCT OF A DEPENDABLE MANUFACTURER

Square Bottles Featured By Cedar Rapids Dairy

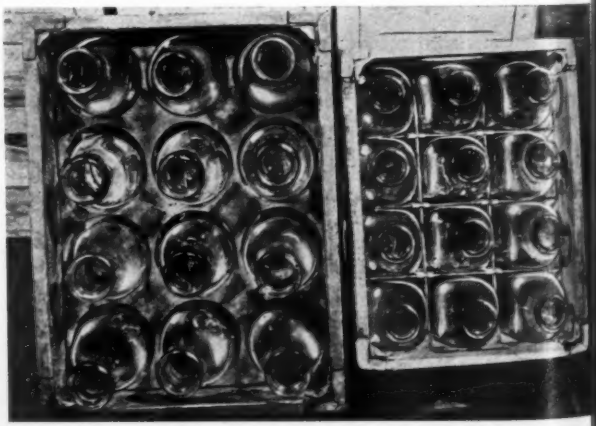
Space Saving and Increased Convenience for Customers and Plant Personnel Attributed to Novel Container—Other Advantages Cited

WARTIME problems in dairy plant operations, delivery curtailments and the necessity of housewives to store more milk in home refrigerators than in pre-war days have been important factors in the acceptance of a square glass milk bottle used for the past year by the Sanitary Farm Dairies in Cedar Rapids, Iowa, according to the report of a recent survey.

The improved "Handi-Square" bottle, a Duraglas product of Owens-Illinois Glass Company, made in quart, pint and half-pint sizes, has proven very satisfactory according to Ed. Reidel, president of the firm and operator of dairies at Clinton, Iowa, St. Paul and Houston, Texas.

Mr. Reidel stated that during the first six months period when square and round bottles were used interchangeably in the bottling operation only minor adjustments to equipment were necessary, one being in the space between the bottle conveyor guide rails and, to accommodate the square bottle, a redesigned metal star-wheel having the same contour as the square bottles was substituted for the former rubber one to center the bottles under the filler and pass them on to the capper.

Because of the rounded shoulders of the new bottles and the fact that its diagonal measurement is the same as the diameter of the round bottle, the Cedar Rapids plant had no



Space-saving illustrated—At the right is a case of the new square quart bottles, one-third smaller by dimensions and 20 per cent lighter than the case of round bottles shown at the left.

difficulties in the washing operation and were designed so that they could be used in the majority of dairy plant bottle handling equipment such as washer, fillers and cappers with a minimum of change.

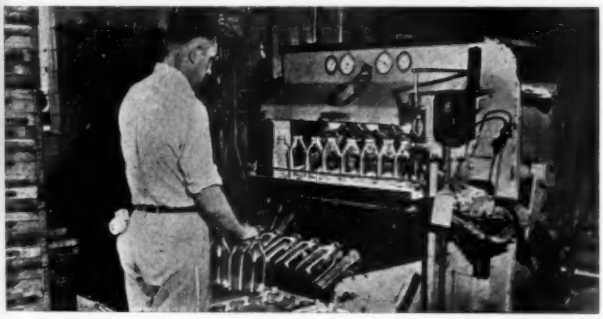
Newly Designed Cases Aid

In the case of this Cedar Rapids operation maximum efficiency was not reached until newly-designed cases had been substituted for the heavy cases previously used. The new cases, one-third smaller by dimensions and 20 per cent lighter, were designed by the Creamery Package Manufacturing Company working with Owens-Illinois and case manufacturers.

The new cases are approximately 12 by 15 inches in size and are designed to hold 12 quarts, 20 pints or 24 half-pints. The three different cases can be stacked interchangeably and are placed sidewise on the conveyors instead of end-to-end as the old cases had been handled.

Due to the compactness of the newly-designed case, two major problems, limited cold room space and frequency in delivery changes facing this dairy in 1943 were overcome. With the new cases it was found that about 45 per cent more milk could be stored in the cold room and considerably more milk could be handled on the trucks.

Another advantage noticed in the Cedar Rapids operation was that drivers saved time on their routes by eliminating much stacking and re-stacking of cases to get to certain items. This was possible because the new cases occupied 33 1/3 per cent less space than the old style cases and therefore gave the driver more room in his truck.



Square bottles adapted to automatic bottle washer

Customer acceptance of the bottle was good from the start, it is reported. Many housewives on the route, because of the wartime restrictions limiting deliveries to every-other-day, were buying from six to ten quarts of milk at every delivery.

Reactions to the square bottle, said Mr. Reidel, were all favorable, many housewives reporting because the square bottles fit more compactly they could store their milk in from 20 to 50 per cent less space. The grocers' reaction likewise was favorable, one grocer stating that 36 square quarts now went on a refrigerator shelf that formerly held 25 round bottles.

Commenting further on the use of the new bottle Mr. Reidel added, "With the large loads we are now carrying, due to every-other-day delivery, the square bottles and the new compact case eliminated the problem of crowding in our trucks.

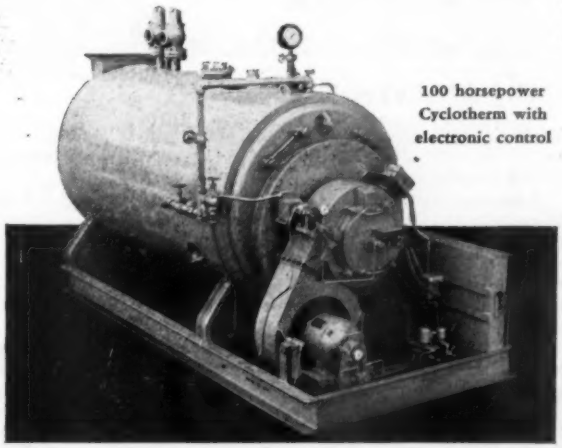
"The trade is very enthusiastic about this bottle, and the space saving in the refrigerator is very much appreciated by the housewife, as she must make room for two days' supply of milk. We like the square bottle very much and believe that, from the reaction of the customer and the space saving features, this bottle has every possibility for success in the distribution of milk."

DOLLAR EFFICIENCY—work done per dollar spent—measures the value of steam generation

Exclusive principles of combustion and design have given Cyclotherm an outstanding record of efficiency and economy among steam generators. Because of its combustion principles and design, Cyclotherm meets the dollar efficiency test throughout its wide power range (10 to 300 horsepower) in units that are both oil and gas fired. Whether used for power, processing or heating, a Cyclotherm makes an enviable record in steam production per unit of fuel consumed.

Cyclotherm Steam Generators are fully automatic, strongly built and fully self contained. They will give you years of trouble-free service for they are designed and constructed for exacting service with a minimum of attention.

While the range of available units obviously cannot be on a peacetime basis, if you are planning immediate replacement, our engineers will gladly cooperate in meeting your needs. Any additional information desired will be supplied promptly.



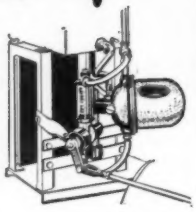
100 horsepower Cyclotherm with electronic control

CYCLOTHERM
STEAM GENERATOR

AMES IRON WORKS
OSWEGO . . NEW YORK . . BOX 612

DIVERSEY ISOFEEDER

the gyroscope



THAT KEEPS YOUR CAN WASHING SOLUTION ON AN EVEN KEEL...

What the gyroscope has done for ships at sea . . . planes in the air . . . yes, even armored tanks on land . . . the Diversey Isofeeder can now do for your can washing machine.

Without a gyroscope, ships and planes may be buffeted unmercifully by the elements. Without an Isofeeder, the strength of the can washing solution may likewise be buffeted by the human element. When that happens . . . when the strength of the solution bobs up and down . . . some cans may possibly come out clean, but many will be rusty, coated with film or scale, or just plain dirty.

The Diversey Isofeeder eliminates the human element. Like a gyroscope it keeps the can washing solution completely under automatic control . . . always at a level keel. With Diversey Novex . . . the improved can washing compound . . . thus automatically maintained at the proper strength, uniformly clean, sweet-smelling cans are assured throughout the entire run. Furthermore, the machine is kept free from film and scale, clogged nozzles, and similar difficulties. Write for complete details.

HELP WANTED?

A specialist in dairy plant sanitation, the Diversey D-Man is at your service without obligation. Call him in the next time you have a "hard-to-lick" sanitation problem.

WIN THE WAR WITH FOOD

DIVERSEY D-MAN

THE DIVERSEY CORP., 53 W. Jackson Blvd., Chicago 4

The "Handi-Square" family of bottles retains the advantages of the light weight and short height "Handi-quart" bottles. The square quart weighs but 17¾ ounces, identical to the "Handi-quart," compared to the 22-ounce quart bottle used before 1940. Secondly, it is nearly one inch shorter than the "straight neck" style.

The square bottle, having flat sides, lends itself well to the application of color lettering showing the dairy's name or other trademark.

Bull Calf Promotes Bonds

This bull calf, "Spruce Shadows—Maxim", a Guersey of proud lineage, earned $700,000 in War Bond Sales, according to the sponsor. Last December the National Cooperative Milk Producers' Federation offered as first prize an unknown bull calf of unknown breed to the member association buying the highest percentage of War Bonds in relation to dues paid.

The Twin Ports Cooperative Dairy Association of Superior, Wisconsin, won the calf and in turn awarded it to the member of the association achieving highest score in an essay contest. The highest award went to R. E. Christenson of Atkinson, Minnesota.

From left to right are here shown: R. E. Christenson; J. A. Lidell, president, Twin Ports Cooperative Dairy Association; John Brandt, president, The National Cooperative Milk Producers Federation.

Fight Waste Poster

HERE'S A WASTEFUL AXIS MAN.
THROWS CAPS AWAY WHEN E'RE HE CAN;
SPILLS THEM ON THE FLOOR GALORE.
HE DOESN'T CARE WHO WINS THE WAR.
SMITH-LEE MILK BOTTLE CAPS ARE MADE FROM VITAL MATERIALS...UTILIZE PARTLY USED TUBES FIRST...AVOID SPILLAGE AND WASTE IN THIS ROOM AND AT THE FILLER SAVE CARTONS FOR WASTE PAPER SCRAP
FIGHT WASTE
FOR THE GOOD OF ALL
Compliments Cap Headquarters, Oneida, N.Y., Piqua, O.

Reproduced herewith is an unusual "Fight Waste" poster which has been sent to dairies with the compliments of the Smith-Lee Co., Inc., of Oneida, N. Y., and Piqua, O.

Recipients of the unique and timely poster have been asked to place it in a prominent place in order to impress employees that they should fight waste as a contribution to the war effort.

Mine For Food Storage

Advantage to be Taken of Natural Facilities for the Preservation of Government Foods

HAVING completed arrangements to lease the 75-year-old Kerford limestone mine near Atchison, Kan., the War Food Administration has moved closer to realization of plans to convert the mine's estimated 12,000,000 cubic feet of space into a storage vault for Government-owned perishable foods, according to a recent press release.

Entrance to 12,000,000 cu. ft. mine

The project, which has taken on important proportions, it is said, includes installation of refrigerator machinery to give the mine a temperature of between 30 deg. and 32 deg. F. Its normal temperature is about 50 deg. This will make it the largest single cooler storage house in the United States, its total cubic footage alone being equivalent to about 9 per cent of all public cooler space in this country.

Naturally insulated with 100 feet of earth and stone, the huge, dry cave has railroad sidings and other attributes of a well-kept warehouse. It is estimated that the mine has capacity sufficient to accommodate 3,000 to 3,500 carloads of food, or the equivalent of 60,000 to 75,000 tons, depending on density.

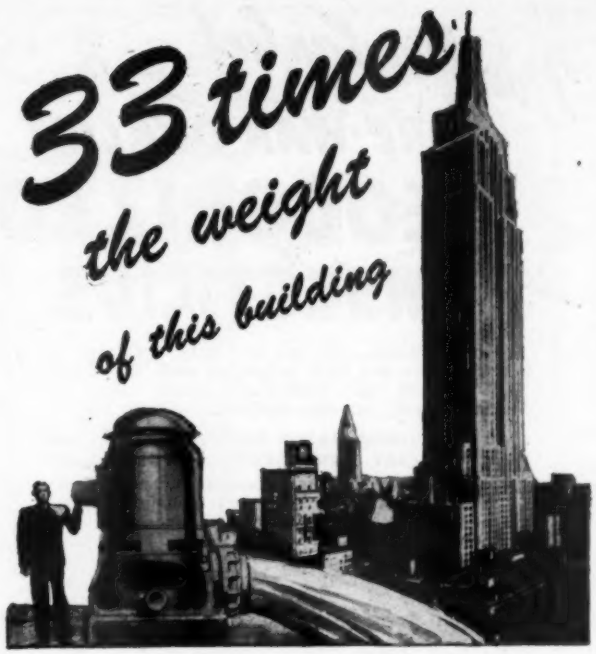
WFA officials estimate it will result in considerable saving annually to the Government. A building with the same floor space would cost approximately $15,000,000 to construct. It is estimated the project will cost about one-tenth of this.

The project will ease the critical cooler storage space, making room for foods during the coming peak marketing season, states the report. It will provide storage space for a wide variety of agricultural products, particularly commodities from the West and Far West in seasons of excess production.

According to a recent letter from William B. Ward, Chief, Information Services Section, Marketing Reports Division of WFA, priorities have already been granted for the refrigerating equipment and the installation will be made.

According to Mr. Ward, it is expected that this storage vault will be ready for use sometime between August 15 and September 1.

Spacious vaults, naturally insulated, provide foundation for country's largest refrigerated warehouse



LIFTING

10 MILLION TONS

of water annually

A good pump has to take a lot of punishment. For instance, take an average size Peerless Pump producing 5000 gallons of water per minute, lifting it from a deep well, 75 feet straight up. That's a lift of over 1200 tons per hour. In one year this pump lifts 10,957,000 tons. That's a lot of lifting. No wonder so many cheaply-built pumps fail. It takes a Peerless to stand up under such a load, year after year. Peerless precision is worth the effort. Peerless stamina is insurance of economical pump life.

10 TO 220,000 G.P.M.

Peerless Pumps

TURBINE • HI-LIFT • HYDRO-FOIL

PEERLESS PUMP DIVISION, *Food Machinery Corporation*

301 W. Ave. 26, Los Angeles 31, California
1250 Camden Ave., S.W. Canton 6, Ohio
OTHER FACTORIES: San Jose 5, Fresno 16, Calif.

Now You Can Get
PRE-WAR QUALITY
DEODORIZED
INSECTICIDE

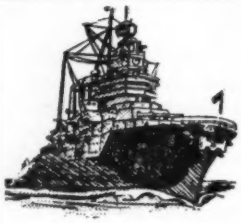
No substitutes. We are now able to furnish the butter, cheese and milk industries with *Deodorized* FLY-TOX in 1-gal. cans, 5 gal. drums and 55-gal. drums. Strictly pre-war quality.

AVAILABLE THRU DAIRY SUPPLY JOBBERS AND DRUG, GROCERY AND HARDWARE WHOLESALERS

Get in touch with your nearest wholesaler and reserve your full season's needs now. The supply is limited. If your nearby wholesaler doesn't have *Deodorized* FLY-TOX in stock, write us and we will see that you are supplied.

Rex Research Corporation
Toledo 7, Ohio

Deodorized FLY-TOX
KILLS MOST INSECTS



Built like a Battleship for Heavy Duty!

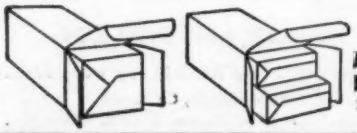
DOERING
BUTTER PRINTERS

possess qualities of sturdiness and dependability that always stand the butter distributor in good stead.

C. DOERING & SON, Inc.
1379 W. Lake St., CHICAGO 7, ILL.

WRAP PRINTS THE SANITARY WAY!

AUTOMATS lead the procession for cleaner, faster, more efficient wrapping and cartoning of butter prints at unbelievably low cost.



Write for full particulars.

AUTOMAT PACKAGING MACHINE WORKS, INC.
15 Broadway, TOLEDO 4, O.

Wisconsin Winter Course

Special 18 Weeks' Instruction in Dairy Manufacturing to be Held September 25 - February 10

GEARED specifically to supplying an increased need for trained personnel in the dairy industry, the College of Agriculture of the University of Wisconsin has announced a "Winter Course in Dairy Manufacturing" to be held at the University in Madison for a period of 18 weeks extending from September 25, 1944 to February 10, 1945.

The course, divided into two semesters, is open both to men and women who are high school graduates or have had 6 months practical experience in a dairy plant. The "Winter Course" is designed to train men and women to take advantage of the opportunities in the industry that currently exist and are expected to continue in the post-war period.

During the first semester (September 25-November 11) students will be instructed in the following subjects: Dairy bacteriology; milk composition and tests; marketing of dairy products; dairy arithmetiic and bookkeeping; dairy mechanics; veterinary science; dairy sanitation.

In the second semester (November 13-February 10) lectures, laboratory practice and instruction will be given on the following subjects: cheese factory operation and management; creamery operation and management; ice cream making; market milk course.

Prof. Jackson Outlines Program

Professor H. C. Jackson, head of the University's Dairy Industry Department, in a statement announcing the "Winter Course", says in part:

"There are real opportunities both now and for the future for men and women in dairy manufacturing.

"There are jobs in dairy plants that can be filled successfully by women as well as men. The Winter Course in Dairy Manufacturing at the University of Wisconsin is an 18 weeks' special course. In it a student is taught not only *how* to do things, but also *why*.

"Students learn the methods of manufacturing dairy products . . . and about the chemical and bacteriological properties of milk and its products . . . relation of these to dairy manfacturing . . . the various methods of testing milk and its products for quality and composition, diseases of dairy cattle, record keeping, accounting, and the use of dairy machinery and equipment.

"A training in modern dairy manufacturing methods is an investment for the future.

"Inquiries concerning this course should be made promptly and registration should be sent in before September 20, 1944."

Full particulars and other details about the course may be obtained from Professor Jackson.

Additional Week Advantages

In a letter to the "Review" accompanying the announcement, Professor Jackson states that an extra week of instruction has been added to the course dealing with dairy sanitation, and that it is possible for students to take all four dairy manufacturing courses which are offered in the second semester. The courses in the second semester are open only to students who have completed the first semester's work.

The announcement states that students usually secure rooms and meals separately, furnished rooms being obtainable at about $3.50 a week and meals costing about $7.00 a week. The estimated average expenses of a student for the full 18 weeks course is $261, which includes room rent, meals, white suits, suit for shop work, fees and text books. There is an additional charge of $100 for tuition for non-residents.

Affected By Drought

Trenton, N. J.—Smaller yields, higher production costs and lower prices faced New Jersey farmers in July, according to a survey released by the State Dept. of Agriculture.

The average July, 1944 price of 25 commodities sold by New Jersey farmers was 5.6 per cent below the July, 1943 price. On the other hand, the farm price of grains and tame hay went up 32 per cent, and milk 9.4 per cent in July, 1944 as compared with July, 1943.

The average July, 1944 farm price of grains and hay advanced 32 per cent compared with the July, 1943 price. Pastures in many localities have been harmed by the dry weather, which makes a serious situation in the northern dairy counties.

Since New Jersey does not produce enough grain crops to feed her cattle, poultry and other livestock, the report states, the considerable rise in the price of grains increases the cost of production of eggs, chickens, and milk for those farmers who buy grain. Poor pasture conditions this July forced many dairy farmers to feed their cattle on winter rations, now scarce and high-priced, thus adding to milk production costs.

New Jersey dairy farmers received on the average of $4.05, government subsidy excluded, per hundred pounds (46.51 quarts) of milk in July, 1944 as compared with $3.70 received during the same month a year ago. This small increase does not compensate for the increased cost of production, says the Department. For July the federal government subsidy, payable through the WFA, amounts to an additional 55 cents per hundred pounds.

Paper Container Strike

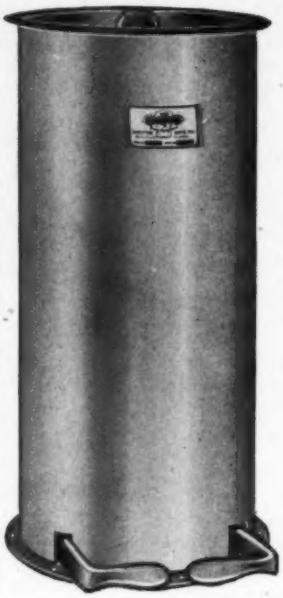
After an unauthorized strike by about 1,300 employees of the American Can Company, Jersey City, where paper milk containers are made, work was resumed August 2, conditionally. A spokesman for the union, an A. F. of L. affiliate, is reported as stating that if the firm doesn't drop all part-time workers the union will serve a 30-day strike notice.

The employees voted to end the walkout, which began July 31, following addresses by officials of the Federal Laborers Union, A. F. of L. About one-fourth of the workers returned to their jobs August 2.

Recommends Tariff Changes

John Brandt, right, president of the National Cooperative Milk Producers' Federation,—snapped as he was interviewed by Stanley Dixon, commentator, over KRNT-WMT-WNAX on his program of full agricultural production and his plan for changing the reciprocal tariff agreements. The broadcast originated at the Democratic National Convention in Chicago.

CAN RINSER
and STERILIZER



Clean your cans the 3-way Girton way!

1. Cold water
2. Hot water
3. Steam

All treatments operated by only two foot pedals, leaving the hands free to handle the cans.

Gives you fast, thorough can cleaning and sterilizing. Easy to install—simple to operate.

Sturdily made of finest materials.

FOB Millville **$37.50**

GIRTON MFG. CO.
MILLVILLE, PA.

Put your money in SOLAR'S

Solars are the choice of the country's most exacting buyers. They set the standard with their dent-resisting steel; their heavy coating of tin; their smooth surfaces; and their careful workmanship.

For long-time service and real economy, get Solar-Sturges cans every time.

SOLAR-STURGES MFG. CO.
MELROSE PARK, ILLINOIS

Loan Drive Successful

Dairy Products Division Among Many Local Units Making Splendid Record in Fifth Campaign

A total of $7,927,375 in War Bonds were sold to executives and corporations through the Dairy Products Division of the Fifth War Loan Drive which closed Saturday, July 8, it was announced by B. I. Christensen, president of Meridale Dairies, Inc., New York City, chairman of the committee. The group operated under the Food Section of the Commerce and Industry Division drive in Manhattan.

The Dairy Products Division supervised the sale of bonds to corporations in the following industries: Milk, Ice Cream and Milk Products, Butter and Eggs, Cheese and Dairy Equipment Supplies.

Broken down by committees, the sales were as follows

Milk, Ice Cream and Milk Products Committee, of which Daniel Liberman, Independent Milk Marketeers, Inc., was chairman, $6,837,275; Dairy Equipment and Supplies Committee, of which R. D. Britton, Wisner Manufacturing Corp., was chairman, $871,075; Butter, Eggs and Cheese Committee, of which Benjamin Titman, of Titman Egg Company and Hendrik Ahlers, of Carl Ahlers, Inc., were co-chairman, $219,025.

Mr. Titman is also conducting a for-the-duration continuous War Bond selling drive throughout the local butter and egg trade through his own booth.

Front Row—left to right: Jack Teitler, J. M. Teitler, Inc., Co-chairman for Italian Cheese; J. Crawford Rivers, Technical Director, Commerce and Industry Division, U. S. Treasury, War Finance Committee for New York; Benjamin Titman, Titman Egg Co., Chairman for Butter, Eggs and Cheese; R. D. Britton, Wisner Manufacturing Co., Chairman for Dairy Equipment and Supplies; Walter R. Maguire, Walter Maguire Co., Member in charge of arrangements; E. Clifford Taylor, Taylor Instrument Co.

Second Row—left to right: Daniel Liberman, Independent Milk Marketeers, Inc., Chairman for Milk, Ice Cream and Milk Products; James R. McBrien, The Diversey Corp.; Everett J. Freud, The Sealright Co., Inc.; Brook F. Jakeman, Cherry-Burrell Corp.; B. I. Christensen, Meridale Dairies, Inc., Chairman for the Dairy Industry; Eugene A. Jordon, War Finance Committee, Commerce and Industry Division, U. S. Treasury; Edward H. Miller, Muller Dairies, Inc.; Hendrik Ahlers, Carl Ahlers, Inc.; R. L. Young, DeLaval Separator Co., N. Y. C.

"4 REASONS" Plus

Let's talk over your NEW STURDY-BILT NOW!

Consider:
• Simple Compact Mechanism
• Fewer Operating Parts
• Low Operating Cost

an original "SOAKER-TYPE"

CLEAN STERILE BOTTLES

STURDY-BILT EQUIPMENT CORP. WEST ALLIS WISCONSIN

SAVE MONEY with a "STURDY-BILT"

Back the Attack with WAR BONDS

Urner-Barry Company

A SOUTH PACIFIC SCENE

Mono Kups Used Advantageously in Far-away Jungles

Willard Deakyne, C.M. 2/c U.S.N.R., former employee of Mono Service Co. of Newark, New Jersey, sends a photograph from "Somewhere in the South Pacific".

Deakyne is shown drinking from a paper Kup, which he tells us came from the Mono Plant in Auckland, New Zealand, which he visited on a recent leave.

Willard Deakyne, C.M. 2/C U.S.N.R.

Deakyne writes: "You will notice on the Kup, it reads "Honey". Some of the fellows brought the honey back to the jungle in these containers. It was surprising how well it kept in this hot climate and the Kups didn't leak. We went aboard ship one night, too late for chow, so they gave us some hot soup and to my surprise, it was served in a paper Kup."

NEW O-I RADIO PROGRAM

Lively Song and Music Show Scheduled to Start September 7

Fred Waring and his Pennsylvanians will be presented regularly on a new half-hour show over the Blue network starting Thursday, September 7, sponsored by the Owens-Illinois Glass Company.

The half-hour show will feature Jimmy Atkins, baritone; Gordon Goodman, tenor; Jane Wilson, soprano; and Donna Dae, ballad singer. The vocal foursome Three Bees and a Honey, will complete the vocal line-up.

In addition to a selection of popular tunes, the program will feature an original repertoire of college tunes, fighting songs and defense numbers.

For Strength... for Cleanliness... *HEIL tank heads have a large knuckle radius*

Large well-rounded corners make cleaning easier — and add further strength to the deep dished heads. This is another of the many advanced Heil features that contribute to lifetime service.

Protect Your Storage Tank Investment... with HEIL Stainless Steel Tanks

1. Entire tankshell with lengthwise bottom sheet is rolled after welding, grinding, and polishing— true shape and perfect drainage.
2. Manhole cover and collar of solid stainless steel — clean appearance and permanent sanitary protection where wear and tear is greatest.
3. Large knuckle radius on heads — easier cleaning and extra strength.
4. Permanent, sanitary joint between outlet valve and tank.
5. No metal-to-metal contacts between inner tank and supports or outer jacket — supporting members welded full-length to outer jacket distribute load evenly without local strains.
6. Rotary-seal agitator employs no packing — has sanitary oilless bearing — simple design for quick disassembly.
7. Thermometer connection and sample cock (in manhole) seal off milk at inner wall of tank — eliminates detrimental pocketing of milk.
8. Light and sight glass fitting sloped for perfect drainage—protected with stainless steel collars.
9. All tanks equipped with fitting for gauge.
10. Sanitary, Nofome inlet and vent combination — for simplicity and ease of cleaning.

When you buy a *Stainless Steel* Storage Tank built from lifetime raw material costing $1,000.00 a ton, you naturally expect it to give you a lifetime of service. BUT it can do so only if you give equal consideration to the fabricator. The Heil Co. — first (1927) to use stainless steel in welded tank construction — offers you the experience, facilities and advanced design so necessary to getting the full lifetime potential from stainless steel. Be sure your choice is one that will reflect credit over a period of years — you cannot afford to be satisfied with anything less than the best. Investigate! Write for literature and information on current government-sponsored program.

T-96

ARMY E NAVY

THE HEIL CO.

GENERAL OFFICES • MILWAUKEE 1, WISCONSIN

Using Our Separator

Items of Interest Skimmed From Here and There

Flow-Master

IN THE Marco Company plant in Philadelphia, among several new appliances that have been perfected, one or two apply directly to the dairy industry. It is stated that its most notable achievement has been to take any guesswork out of the operation of the Flow-Master Homogenizer by making it automatic. By simply setting the dial to the pressure desired and pushing the button the machine does the rest.

A company announcement states that it has automatic wear control by which volumetric efficiency is maintained, has automatic seals, automatic check against insufficient lubrication and automatic check against condensation adulterating the oil. The only moving parts are the rotors, and they are hydraulically balanced so that there is no severe metal-to-metal contact. Long life with little upkeep is thus assured.

The Flow-Master can be taken down for cleansing and reassembled in fifteen minutes, and as there are no threads and no pockets in which bacteria can become lodged, and no way in which the product can even hesitate in its forward movement once it enters the machine, the Flow-Master is said to be one of the most sanitary machines on the market.

V-Belt Drives

JUST published by The B. F. Goodrich Company, Akron, Ohio, a new 44-page handbook on industrial fractional horsepower V-belt drives is now available upon request.

The booklet notes the trend toward larger sheaves in both fractional horsepower and multiple V-belt drives, describes the construction of B. F. Goodrich fractional horsepower V-belts and gives prices and data on both sheaves and belts.

One of the most valuable portions of the handbook is the chapter on proper selection of FHP belt drives, with formulae, together with a page on how to get the most service from V-belt drives. Horsepower ratings and general engineering data of these drives are given, together with selection tables of stock drives using pressed steel and cast iron FHP single groove sheaves and adjustable cast iron single groove sheaves. Twenty-seven pages are devoted to these tables.

Insect Killer

DESIGNED especially for industrial and institutional use, a new insect killer—the Whizooka Roach Gun—has been announced by The R. M. Hollingshead Corporation, Camden, N. J.

It is described as a pump-action, canister gun, 2¼ inches in diameter and 11 inches long, which comes fully loaded for instant use. It contains a supply of Lethane A-70, and shoots a cloud of deadly dust into cracks and runways to wipe out roaches and other insects.

Lethane A-70 is said to be a new, powerful insecticide which kills faster than Sodium Fluoride and retains its deadly properties longer than Pyrethrum. It is harmless to animals and human beings.

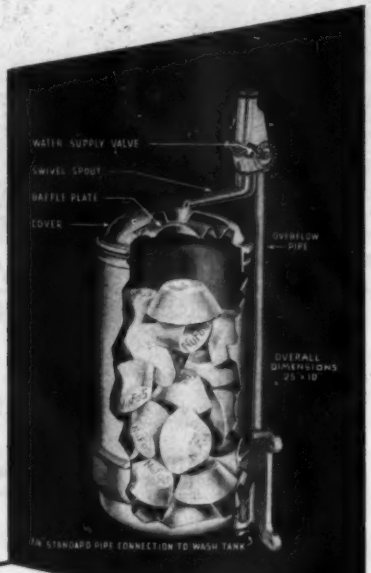
Truck Tires

A FRANK analysis of the truck tire situation now and in the immediate future as well as a candid discussion of the quality and service of synthetic truck tires is contained in an address given by J. E. Powers, manager of the truck and bus tire department of The B. F. Goodrich Company before the Pennsylvania Motor Truck Association recently.

The address has been reproduced as a booklet, which is available upon request to the Public Relations Department, B. F. Goodrich Company, Akron, Ohio.

controlled alkalinity!

THE SECRET OF GOOD CAN WASHING



● To get can surfaces thoroughly clean, sanitary and free rinsing, use Super-Nufos briquets* in the Super-Nufos automatic feeder. By dissolving at a slow, uniform rate, this scientifically balanced cleanser assures controlled alkalinity—the secret of good can washing.

With Super-Nufos, your can washer lasts longer because scale can't get a start. And, over a period of time, existing scale dissolves. This cuts down re-tinning too.

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Lo-Bax . . . Super-Nufos . . . H T H-35 . . . Dry Ice . . . Carbonic Gas . . . Ammonia, Anhydrous & Aqua . . . Caustic Soda . . . Soda Ash . . . Bicarbonate of Soda . . . Liquid Chlorine . . . Bleaching Powder . . . Fil-Pine . . . Synthetic Salt Cake . . . Sodium Chlorite Products . . . Sodium Methylate

EDGAR QUESNEL HONORED

Borden Executive Recognized For Distinguished Accident Prevention

Recognition of four years of distinguished service in war industry accident prevention was paid to Edgar G. Quesnel, Director of Safety of the Borden Company, by Secretary of Labor, Frances Perkins, July 31. At a special ceremony held in the offices of the Borden Company, New York City. Mr. Quesnel was presented with a badge and citation "For meritorious service in the prevention of accident in war industry."

Mr. Quesnel has served for the past four years as Regional Representative of Regions 2 and 3, National Committee for the Conservation of Manpower in War Industry, operating under the Division of Labor Standards, United States Department of Labor.

After the preesntation by the Secretary and acceptance of the award by Mr. Quesnel, Theodore G. Montague, president of the Borden Company, spoke on behalf of the company. Lt. Colonel M. K. Barrett and Major G. S. Reeves who represented Major Thomas A. Terry, Commanding General of the Second Service Command, expressed the thanks of the Army.

The award was the first of 9 to be presented to Regional Representatives throughout the country. It is a gold bar bearing the monogram, "CM" for conservation of manpower, and stars for each six months of service beyond 18 months.

SPENCE LEAVES LEND-LEASE

Byran Spence, until recently chief of operations control, Food Branch, Foreign Economic Administration and former aide to Edward. R. Stettinius, Jr., Lend-Lease Administration, has resigned from government service to become market advisor to Northeastern Packing Co. of New York City.

Prior to his association with the government's Lend-Lease activities, Mr. Spence was with Chris. Hansen's Laboratories, the Junket Co., Little Falls, N. Y., and the Hygeia Ice Cream Co., Elmira, N. Y.

PLAN NORTHEAST MEETINGS

Ithaca, N. Y.—Present and post-war problems of Northeast agriculture and how farmers can best meet them will be discussed at a series of more than 600 farm meetings in communities throughout New York, New Jersey and Northern Pennsylvania during the next three months, Frank M. Smith, Springfield Center, and President of the Cooperative Grange League Federation Exchange, announced here recently.

Mr. Smith, who pointed out that this is the twenty-fourth consecutive series of G.L.F. patrons' annual meetings, said that total attendance should run well over 100,000.

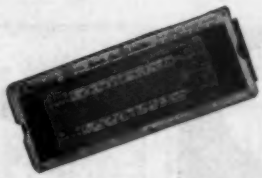
Features of the program will include a full and complete report on the past year's operation of the cooperative, election of local committeemen and a discussion of present and post-war problems of Northeast agriculture and what farmers can do to meet them.

The G.L.F. is a non-profit farmers' cooperative reportedly used by more than 180,000 farm families to buy farm supplies and sell farm products.

PRICES OF FARM PRODUCTS OFF

Washington, D. C.—A general price average of 113 per cent of parity for farm products to farmers in mid-July, a drop of 1 per cent from a month earlier, was reported July 31, by the Agriculture Department. Downturns in prices received for grains, truck crops and meat animals were more than sufficient to offset upturns in cotton, fruit, milk and egg prices.

The crop price index at 194 of its 1909-'14 average was down 3 points from mid-June but was still 6 points above July a year ago.



Instant steam cost calculator!

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It will help you to find out "where you are at!"

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CLEAVER-BROOKS oil-fired steam generators can give you steam for heat, power or process uses quickly and in volume—15 to 500 HP. Cost per lb. of steam (fuel and maintenance) is unusually low—guaranteed thermal efficiency of over 80% and long intervals between calls for cleaning and replacement make it so.

These steam plants are shipped to you as compact, complete units ready to set in place on ordinary floors and connect to piping. Embodying all modern automatic features, Cleaver-Brooks steam generators make very little demand on your operating crew for attention. Their inherent cleanliness makes them the ideal steam source for milk plants.

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Cleaver-Brooks STEAM GENERATORS

Lend-Lease Shipments

June Deliveries of Foods Off 24% From May, Reports WFA—18,000 Dairy and Poultry Products

Washington, D. C.—June deliveries of food and other agricultural products under lend-lease and other war programs totaled 806,942,749 lbs.—about 24 per cent less than deliveries in May which amounted to 1,060,963,642 lbs., the War Food Administration announced July 26.

Deliveries at shipside for the allies in June amounted to 658,116,418 lbs. or 82 per cent of total, compared with 857,870,924 lbs. or 81 per cent in May. These lend-lease deliveries were divided as follows: dairy and poultry products, 18 per cent; meats, 27 per cent; fats and oils, 10 per cent; grain products, 17 per cent; fruits and vegetables, 13 per cent; sugar, 9 per cent; special commodities, 5 per cent; cotton, 1 per cent; and tobacco, less than 1 per cent.

Destinations of June deliveries were: British Empire, 58 per cent; Russia, 32 per cent; and other claimants, including Greece, North and West Africa, and the French Committee of National Liberation, 10 per cent .

Cash sales in June to the armed forces, Red Cross, foreign relief groups and other agencies that share in United States food supplies totaled 98,485,867 lbs. (12 per cent) of total June deliveries compared with 78,562,663 lbs. (8 per cent) in May.

Further Breakdown of Figures

Under WFA's Caribbean and Territorial Emergency Programs, deliveries in June totaled 33,691,213 lbs.—15,426,278 lbs. to Puerto Rico and the Virgin Islands under the Caribbean program; and 18,264,935 to Hawaii under the Territorial program. These shipments represented 4 per cent of total deliveries in June, compared with about 10 per cent in May.

Sponsors of school lunch programs, relief agencies and other civilian groups in the United States got 16,649,251 lbs. or 2 per cent of food stuffs in June compared with 13,062,975 lbs. in May.

Some detailed figures on June deliveries follow:

Agricultural Commodities Delivered at Shipside During June—For Export Under Lend-Lease

Commodity	June (Lbs.)	January 1 Through June 30, 1944 (Lbs.)
Dairy & Poultry—		
Butter		4,139,634
Butter Oil	1,892,767	1,892,767
Carter's Spread	4,735,417	16,614,799
Cheese	7,857,386	110,409,744
Eggs, Dried	28,732,921	119,352,707
Milk, Condensed	3,094,044	9,362,441
Milk, Dry Skim	17,699,883	66,158,397
Milk, Dry Whole	2,432,529	10,187,752
Milk, Evaporated	51,675,606	219,914,343
Lactic Acid		37,152
Milk, Lactated	135,440	247,448
	118,255,993	558,317,184
Oleomargarine	6,577,263	39,142,127

AN AID TO FARMERS

Fewer Types of Farm Machines Now on the Rationed List

Fewer types of farm machinery and equipment are now rationed, according to a recent WFA announcement.

The new list of rationed farm implements includes 19 types, as compared with 31 types rationed during the current year. In addition, eight types of nonrationed implements are being released from distribution regulations.

Implement production, which more nearly approaches pre-war levels than a year ago, and tendencies toward greater stabilization in crop acreage enable the War Food Administration to reduce the list of rationed items, officials said.

The 19 types of rationed farm machinery are divided into two groups. Schedule 1 lists nine types of important implements which will be rationed in accordance with State and county quotas. These are: Combines, corn binders, corn pickers, manure spreaders, mowers, side-delivery rakes, hay loaders, pick-up hay balers, and tractors.

Schedule 2 lists 10 types of equipment for which county distribution cannot be readily established and therefore rationing is not subject to county quotas. These are: Grain drills, potato planters, potato diggers, silo fillers, irrigation pumps, power sprayers, garden tractors, deep- and shallow-well water systems, power pumps, and farm milk coolers.

MONO SERVICE CLAM BAKE

An outing and old fashioned clam bake was held by the superintendents and executives of Mono Service Co. at Glattly's Grove, Clifton, New Jersey, July 22. Sixty-three men and their wives attended.

The program started with a baseball game between the Kups and the Lids, resulting in an eleven to one victory for the former.

The following is a list of the races and winners: Horse Shoe Pitching Contest—Al. Tasner; Ladies' Shoe Scramble—Mrs. W. Perdue; Men's Shoe Scramble—Al. Tasner; Sack Race—Jack Selbiger; Peanut Race—G. Van Buskirk; Three Legged Race—Mrs. G. Van Buskirk and Edgar F. Wright.

The evening was rounded out with music, singing and dancing.

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Dairying Praised

Richards, Guest on Railroad Program, Lauds War-time Milk Output, Outlines Post-War Plan

In a ringing tribute broadcast from coast to coast on the Union Pacific's "Your America" program, the dairy industry was praised as "a shining example of the system of individual effort and private achievement that has made America great."

The acclaim was expressed over the air from Omaha by the railroad's spokesman in introducing Owen M. Richards, Chicago, manager of the American Dairy Association, selected to represent dairying on the program honoring that mighty industry.

Vital importance of milk, both from the standpoint of national health and the national economy, was emphasized by Ray Olson, the railroad's narrator.

Noting that dairying produces "one food that is indispensable to health," he stressed that from the economic standpoint, it is significant because it yields a fifth of all agricultural income in normal times—a gigantic industry.

Typifies American Enterprise

"In the truest sense," the broadcaster said, "it has more than 27 and one-half million factories—the dairy cows of America. It has thousands upon thousands of additional plants that process milk, butter, cheese, ice cream, evaporated and powdered milk for the tables of America's millions and our boys at the front. But we particularly honor the dairy industry because the men who built it were and are so typical of the men who built America. Their fathers came to this country seeking new homes and free opportunity. They brought cattle with them as a prerequisite of any self-sustaining society.

"And down through the generations, father and son, the men of the dairy industry have labored, with initiative and enterprise, to improve their herds and the methods of processing milk, to expand the people to the importance of milk in the human diet.

"That they have achieved results is evidenced by the strength and vigor of our people. Meanwhile, the dairy industry stands as a shining example of the system of individual effort and private achievement that has made America great."

Richards Speaks for Industry

Speaking for dairying, Mr. Richards expressed appreciation of the Union Pacific's tribute, commenting it was especially appropriate "because the 11 states laced by its network of rails produce 19 per cent of the nation's milk." He added that the 11 states manufactured more than a fourth of America's butter, a fifth of its cheese and a fifth of its evaporated and condensed milk.

The American dairy farmer's wartime achievement of boosting milk output, despite handicaps of manpower and equipment shortages, was touched upon by Mr. Richards when he spoke of such increased production as "of vital importance to the well-being of this country and her Allies."

Mr. Richards praised the "vision, vigor, courage and toil" of the dairymen and voiced gratification that "the spirit of enterprise lives so strong on the farms of America."

"American enterprise and resourcefulness is coming to the fore again," he said, in the farmers' preparation for post-war surpluses likely to develop when the government halts heavy buying for war purposes.

Farmers are setting out to meet such a surplus—"meeting an economic crisis before it arises"—by paying their own way in a nation-wide business-building drive of advertising and research, conducted through the American Dairy Association, to encourage greater post-war consumption of all dairy foods, Richards explained.

"Today," Richards said, "the dairy farmers are busy producing milk—the world's most nearly perfect food—but even as they do so, they are mobilizing to meet the challenge of the future with faith in themselves and faith in their country."

Buy War Bonds & Stamps

MILK ORDER AMENDED

Washington, D. C.—Following its approval by more than the necessary two-thirds majority of farmers eligible to vote on proposed changes in the Fall River, Mass. milk marketing order, the War Food Administration has issued an amended order for the area.

Effective recently, Class 2 milk purchased by a handler will be considered the production of local producers only up to 5 per cent of their milk, and the remainder will be considered Class 1 milk, at such times as the handler receives milk from sources outside the regular milkshed; A differential will reflect the added cost of receiving milk at country plants and transporting it to the market, as distinguished from receiving milk directly at city plants; The Class 2 milk price will be increased by about 13 cents during April, May and June by elimination of casein prices from the skimmilk price formula. This change will not require adjustment of retail ceiling prices.

Likewise there will be an increase in the quantity of milk to which the administration assessment applies and the rate of assessment accordingly will be reduced from 5 cents to 4 cents per hundredweight.

An Invitation from REX COMPANY to

acquaint you with the latest methods in food plant sanitation

★ **MIKRO-SAN** U. S. PAT. NO. 2,330,080 — The original acid cleaner for can washing and general cleaning.

★ **REX MILKSTONE REMOVER FOR TINNED EQUIPMENT** U. S. PAT. NO. 2,330,080 — Formerly known as formula 1029-1 —The safe cleaner for removing milkstone and waterstone from all tinned surfaces.

★ **REX MILKSTONE REMOVER FOR STAINLESS STEEL** U. S. PAT. NO. 2,330,080 — An extreme active and effective cleaner for such difficult jobs as stainless steel deodorizers, pasteurizers, etc.

★ **REXCO-PHOS** — Formerly known as No. 372-2—A safe and active cleaner for general use wherever a good alkali cleaner is needed.

★ **REX ACID INHIBITOR** — For use in descaling bottle washing and can washing machines safely with no danger of freezing or sticking the machine.

★ **EXCELCIDE VAPO SPRA** — A specially fortified product that kills roaches and all insects by inducing both a respiratory and a leg paralysis.

★ **EXCELCIDE REPEL MIST** — A non-poisonous insect repellant—Kills insects by leg paralysis. A non-volatile liquid and will remain on the surface for a long period of time and remain effective.

★ **DOW METHYL BROMIDE** — For gas fumigation of food plants.

A booklet describing in detail all of the above sanitary products and the methods of application will be sent upon request.

THE REX CO., BURLINGTON, IOWA

CAMPAIGN PROGRESSES

Food Industries Give $155,154 to Date to Greater New York Fund

Francis L. Whitmarsh, president of Francis H. Leggett and Company, chairman of the Foods Group for the 1944 campaign of The Greater New York Fund, has announced that the food industries and their employees contributed a total of $155,154 thus far to the Fund.

J. Stewart Baker, general campaign chairman, who presided at the city-wide third report luncheon held June 8 at the Commodore Hotel, announced total subscriptions for all the boroughs, covering the intensive period of the campaign, of $4,023,511.

The Dairy Products Division had total subscriptions of $38,668, as announced by chairman F. J. Andre, president of the Sheffield Farms Company, Inc. Robert E. Crowley, vice-president of Sheffield Farms, is vice-chairman. The activities of this group were divided among the four major industries in the dairy produce field as follows: Butter, Eggs and Cheese, Ben Titman, of the Titman Egg Company, chairman; Ice Cream, H. J. Minfur, personnel director of the Pioneer Ice Cream Company, chairman; Milk, E. O. Mather, executive director of the Milk Dealers Association of Metropolitan New York, Inc., chairman and Independent Milk Marketers, Daniel Lieberman, director of Independent Milk Marketers, Inc., chairman.

The Meat and Poultry Division, through its chairman John Q. Adams, vice-president of The Manhattan Refrigerating Company, reported total subscriptions amounting to $9,662. The division carried on its program with the following six sub-divisions of the meat and poultry supply industry functioning in their respective fields: Casings, Edward Oppenheimer, president of the Oppenheimer Casing Company, chairman; Dressed Poultry, Paul Hoffman, of Hoffman & Mayer, chairman; Eastern Slaughter Houses, Fred W. Shattuck, president of F. W. Shattuck and Company, Inc., chairman; Hotel Supply James Smith, vice-president of Ottman and Company, chairman Western Meat Packers, George Mitchell, district manager of Swift and Company, chairman and Wholesale Meat, Charles Gachot, president of Charles Gachot and Company, Inc., chairman.

WICHITA MILK ORDER

Washington, D. C. — A federal milk order which will regulate milk marketing in the Wichita, Kansas area, went into effect recently. The order was issued by the War Food Administration following its approval by farmers eligible to vote.

The order replaces the federal license under which milk marketing in this area had been regulated since 1934. Its provisions are similar to those of the license and to those contained in other federal milk marketing orders. Max M. Morehouse, market administrator of the Wichita license, has been appointed administrator.

Under the order, the price of Class 1 milk with a 3. butterfat content will be $3.65 per hundredweight, the present OPA ceiling on fluid milk for the Wichita market. The Class 2 price will be 25

CONCENTRATED MILKS

DATE	CASE CONDENSED Known br. (case)	CASE CONDENSED Other br. (case)	CASE EVAPORATED Known br. (case)	CASE EVAPORATED Other br. (case)	Unsw. cond. whole milk 40-qt. can 10% Fat	DRY SKIMMILK —Spray— Known br. Lb.	DRY SKIMMILK —Spray— Other br. Lb.	DRY SKIMMILK —Hot Roller— Other br. Human	DRY SKIMMILK —Hot Roller— Other br. Feed
July 1	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 3	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 4	Holiday								
" 5	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 6	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 7	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 8	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 10	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 11	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 12	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 13	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 14	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 15	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 17	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 18	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 19	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 20	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 21	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 22	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 24	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 25	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 26	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 27	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 28	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 29	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
" 31	6.25@6.40	—@—	4.20@4.25	4.20@4.25	—@—	15½@—	15½@—	15½@—	—@—
Total	6.32½	—@—	4.22½	4.22½	—@—	15.75	15.75	15.25	—@—

N. Y. MILK PRICES

Basic prices for 3.5% milk in 201-210 mile zone in effect in New York City Area under the Federal-State Marketing Agreement used by all handlers in figuring returns for July:

Class	Price per cwt.	Per point butterfat differential
I In Marketing Area	$3.70	.04
I Outside non-Federal	.20†	.04
II-A	2.55	.073
II-B	2.43	.069
II-C	2.180	.062
II-D	2.239	.064
II-E	2.080	.059
II-F	2.080	.059
III	2.682	.077
IV-A	1.796	.051
IV-B	2.295	.056
V-A	1.260	.....
V-B	.722	.....

†Plus uniform price for July, 1944.

Rail & Truck Receipts at N.Y.C.&Metrop. Area (Statistics of U. S. Dept. of Agriculture)

1943-44 Milk	Fresh Cream	Frozen Cream	Fresh Cond. Milk
June ..3,690,287	92,593	7,077	41,139
Mar. ..3,621,846	57,706	2,121	26,473
Feb. ..3,391,796	49,789	5,571	19,123
Jan. 3,575,561	48,934	3,667	21,164
Dec. ..3,619,966	48,523	10,053	17,234
Nov. ..3,577,807	46,252	12,273	19,393
Aug. ..3,605,190	70,662	7,017	41,766

WANTED—MILK

Our large outlets keep us constantly in the market for *all kinds* of milk

8% Whole, Evaporated, Sweet and Condensed, Liquid Whole Milk

TRUCK OR CARLOADS

Tie in NOW with a house that will take care of you in the post war period when the market may be against you. It will pay you to phone us today.

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cents below the Class 1 price, or $3.40 per hundredweight. The Class 3 price will be the highest price paid for milk for manufacturing by a specified group of creameries located in the Wichita supply area.

CEILINGS COVER COOPERATIVES

OPA Clarifies Ruling on Milk Handling by Farmers' Groups

Washington, D. C.—Farmers' co-operatives are under maximum control whether or not they take title to the milk of their patrons, the Office of Price Administration ruled July 13.

The ruling, effective July 17 and taken under Amendment 19 to MPR 329, applies only to co-operatives which were exempt from price control as producers, under the provisions of previous Amendment No. 13 to the the order.

This clarifying ruling was made in order to place all farmers' co-operatives and prorietary handlers of milk on an equal basis with respect to fluid milk received by them in plants. It should dispel said OPA, any confusion that may have existed in regard to the status of farmers' co-operatives as purchasers of milk.

CHURNED SOYA BUTTER

Soya Butter is the name of a new soybean product reportedly manufactured by the Butler Food Products Company of Cedar Lake, Michigan.

The product is said to resemble butter in taste and appearance, will not, it is claimed, become rancid, and is made by churning hardened soybean oil in soya milk, with other ingredients added.

NEW ODT MOVE

Washington, D. C.—In a move to expedite the steady flow of farm products from areas of production to points of destination, the Office of Defense Transportation announced July 7 that it is authorizing and urging producers, carriers and handlers of farm products to establish Industry Transportation Advisory Committees. These committees will assist ODT district managers in putting to full use all motor trucks available for transportation in the several ODT districts, Colonel J. Monroe Johnson, ODT director, said. It was explained, however, that dairy products are not included among the farm products affected by this order, since they are covered by Administrative Order No. 19.

OHIO MEETING IN JANUARY

According to a recent communication from Russell Fifer, executive secretary, the board of trustees of the Ohio Dairy Products Association has voted to hold the 28th Annual Meeting and Executives' War Conference of this Association on Monday and Tuesday, January 15 and 16, 1945, at the Deshler-Wallich Hotel, Columbus, Ohio.

Members of the association are requested to submit suggestions in regard to speakers, topics or a change in types of sessions to be held. Address of the Executive Office of the Ohio Dairy Products Association is 5 East Long Street, Columbus, Ohio.

ENGLAND WITH STEPHENS

An announcement has been made that Dr. C. W. England has resigned his position as Professor of Dairy Manufacturing at the University of Maryland after having been engaged in teaching and research there since the fall of 1933. He is now Director of Research for C. Y. Stephens Dairy and Poultry Industries, the owner of which operates eleven dairy plants including Highland Farms and High's Dairy of Baltimore, Washington, and Richmond.

ACHIEVEMENT "A" AWARD

The Achievement "A" Award to men and women of the Dairymen's League Co-operative Association, Inc., will be presented by the War Food Administration at a ceremony to be held on Monday afternoon, August 7, at 3:15 P. M., at the Massena Town Hall Auditorium, Massena, N. Y.

Classified Advertising

POSITION WANTED

MANAGER with the best of references and experienced in all branches of Dairy Plant Manufacturing operations and sales, wishes to make permanent connection with a milk, ice cream or condensing plant. Write Box 715, care this publication. 8-M

A SUCCESSFUL production plant manager, 50 years of age, wishes to contact a firm needing such a man. Producing bottled Milk and Cream, Ice Cream, Cottage Cheese and all by-products. If you need such a man, write Box 720, care this publication. 8-M

HELP WANTED

DRAFT EXEMPT — Two experienced buttermakers, two experienced pan men for whole milk and skimmilk, two experienced powder men for roller skim milk, for work in New York State. Give age, family status, experience. Also send references. Good salary if well qualified. Write Box 717, care this publication. 8-M

SALESMAN now calling on Dairy and Ice Cream Manufacturers to sell Dairy Chocolate Powder, Orange Bases, True Fruit and Imitation Flavors, Extract for Ice Cream & Sherbet Manufacturers. Commission Basis. State territory and lines carried. Jay Food Laboratories, 15 Malvern St., Newark, N. J. 8-M

EQUIPMENT FOR SALE

7½x7½ Slow Speed York Compressor, 25 H.P. motor and starter, no fly wheel, $500.00. Karsten Dairies, Inc., 2338 Hermany Ave., New York, N. Y. Phone UN. 3-4835. 8-B-M

STAINLESS STEEL Doering Butter Printer—1,000 lbs. per hour—like new—complete accessories, including tub cutter. Box 718, care this publication. 8-M

BAGBY SOUR CREAM Filler—2 piston pump — automatic — all stainless, including dump tank and pump. Box 719, care this publication. 8-M

DOUBLE COMPARTMENT wash sink —boiler plate construction—2-deck thermometer milk fitting. Electrically driven Babcock tester. Small can sterilizer. Mohawk, 49 Bergen St., Brooklyn, N. Y. 8-M

FOR SALE—60-gallon Pfaudler Pasteurizer or Tank with revolving coil; 100-gallon Cherry-Burrell Spray D Pasteurizer, s.s. lined; 200-gallon Cherry-Burrell Spray Vat Pasteurizer, nickel lined; 200-gallon York Low Boy Pasteurizer, s.s. lined; 300- to 350-

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A new standard in case truck quality!

Strong rigid steel frames. Stainless steel swivel bearings, operating on double-level raceways. Noiseless, rugged rubber wheels rolling on the new compressed powdered iron bearings. Positive, high-pressure lubrication throughout. In 1, 2, and 3 stack sizes.

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gallon Coil Vats; Type "B", "J", "NH" and "L" Milwaukee Fillers; No. 6 Creamery Package Filler, s.s. bowl; Model "AA", "B" and "C" Mojonnier Fillers; 5 ft., 6 ft. and 10 ft. Tubular Surface Coolers, 8 ft. and 12 ft. Combination Direct expansion Coolers; 6000-lb. C.P. Barrel Heater; 4, 6 and 8 Wide Soaker Type Bottle Washers; Von Gunten Milk Filter, 17-in.x 25-in.; No. 12 Peerless Glass Coated Filter, 12000-lbs.; 1000-lb. Two Compartment Tinned Copper Weigh Can; No. 3 Vane Churn, 1000-lb. capacity; E-28 and No. 30 De Laval Motor Driven Separators; No. 31 and No. 61 De Laval Steam Driven Separators; 60- to 400-gallon Homogenizers or Viscolizers; 100-, 500-, 1000- and 1800-gallon Glass Lined Holding Tanks; 7 ft. Copper Vacuum Pan. Write or wire your requirements. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17. N. Y. Telephone: MUrray Hill 2-4616. 8-M

FOR SALE—2000-gallon round Pfaudler glass lined truck tank; 7-in. single cylinder Worthington Compressor; 5x5 - 7x7 - 6½x 6½ York; 5x5 Sterling compressors all complete with accessories and motors; No. 60 and 72 motor driven, complete with back type, factory rebuilt; 50 horsepower upright boiler; 12 tube 8 ft. 1 in. I. T. cooler; 250-gallon Manton-Gaulin homogenizer, bronze head with motor; 8 wide Heil bottle washer, comeback type; one 90, either 48 mm. or No. 2 caps, one A.A. No. 2 caps and one Model C Mojonnier Two Type L Milwaukee milk bottle fillers; 40-qt. motor driven brine ice cream freezers; York heat exchanger, stainless steel plates; Permutit water softener outfit complete; Van Gunten milk filters, white metal, 12 000 lbs. per hour; Fort Wayne round stainless steel pasteurizers 300 gallon, motor driven with motors; 100 gallon round Pfaudler glass lined pasteurizer complete. Three sections tinned copper surface cooler, eight 1½ inch tubes; 10-ton ice field complete, practically new; 1200-lb. Vane churn complete with motor; Centrifugal water pump, with 7½ h.p. motor, 200 gallons per minute; Worthington centrifugal high pressure water pump with 10 h. p. motor, 100 gallons per minutes; steam driven Worthington double acting water pump; 3½-in.x2½-in.x4-in. Write your wants. Room 73, 321 Broadway, New York 7, N. Y. WOrth 2-4975. 8-M

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AMR 8/44

motors, De Laval Cream Separators; Pfaudler King milk bottle filler, stainless steel, like new; No. 2 cappers 48 bottles per minute; 600-gallon Pfaudler glass lined vertical milk storage tank. Direct expansion surface cooler, 12 foot long, 8 two-inch tubes each section—two direct expansion white metal—one section tinned copper, distributor pipe, lower trough; two 150-gallon Cherry-Burrell spray vats stainless steel, complete motors, recording thermometers, pumps, etc.; two small automatic sweet cream whippers, motor driven; refrigerator door, 6-ft.x6-ft.x44-in., eight inches thick, metal covered with jamb and hardware; hydraulic hoist, water operated, better than ton capacity; Rice Adams rotary can washer 2-3 minute; 1000-pound hanging Toledo dial scale; 300-gallon Pfaudler glass lined pasteurizer, complete; 24-in. by 10-ft. high pressure ammonia receiver; 20 horsepower Leffel Scotch Marine boiler and stack; 100-gallon viscolizer with motor, bronze head, hand capper No. 2 caps; new Binks spray cooling tower, 90 gallons per minute; used Bink spray cooling tower, 100 gallons per minute; Iron Fireman stoker for 100 horsepower boiler; Meyer Dumore bottle washers, 8 and 12 wide come-

FOR SALE — Three Meyer-Dumore washers, 8 wide, New York City Board of Health approved, now running, will be available about September 1 upon installation of larger unit. Box Z, care this publication. 8-M

CHEESE PLANT WANTED

CAN MAKE DEAL with plant having a cheese production quota according to War Food Administration Cheese Limitation Order. Interested in manufacture soft type cream cheese. Faster Food Products, 15 Jay St., New York 13, N. Y. 8-M-1

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PART SKIM CURD wanted, around 1 per cent B.f.—for the Italian trade, also fresh whey cheese. Write Box 716, care this publication. 8-M-t.f.

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CREAM FOR BUTTER—Small or large quantities wanted. Permanent or spot shipments. Cobocton Creameries, Inc., 6071 Metropolitan Ave., Ridgewood, N. Y. 8-M-t.f.